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ABSTRACT

The pilot study reported in this monograph is part of a larger study that includes data on 5 Southwestern American Indian reservations. Its primary purpose is to provide basic manpower information essential for planning and developing effective services and programs for the Acoma Pueblo Indians. Manpower resource characteristics are presented for age and sex, family characteristics, and educational attainment. Although population registers maintained by the Bureau of Indian Affairs listed 1, 654 people 16 years of age or older, when a random sample of 500 of these names was selected, only 275 could be located on the reservation. On the basis of this, the population 16 years of age and over is estimated at 910 people. It is noted that about 41 percent of the Acoma working-age population are in the labor force. Information is presented on sources of income and consumation patterns. The consumption patterns show that Acoma families depend heavily upon off-reservation stores for their consumer goods. A major conclusion was that Acoma successes in raising their level of living will be dependent upon their ability to obtain off-reservation employment. (PS)

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Occasional Paper Number 5

ACOMA RESERVATION MANPOWER RESOURCES

INDIAN MANPOWER RESOURCES IN THE SOUTHWEST

A PILOT STUDY

BENJAMIN J. TAYLOR
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Acoma Reservation Manpower Resources

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Preface

The Indian Manpower Resource Study was started in June, 1967. It was made possible by a grant from the United States Employment Service to the Bureau of Business and Economic Research, College of Business Administration, Arizona State University, through the Arizona State Employment Service.

This monograph is a part of a larger study dealing with five Indian reservations located in Arizona and New Mexico. In addition to the Acoma Reservation presented in this study, it included the Fort Apache, the San Carlos, the Papago, and the Laguna reservations. The total research project was published under the title *Indian Manpower Resources in the Southwest. A Pilot Study.*

Basic data contained in this study were generated through a sampling procedure utilizing questionnaires for personal interviews. Space does not permit a discussion of the sampling method used nor of the questionnaire. The reader is directed to the larger study for a review of this important aspect of the research. It should be kept in mind, however, that the method used proved accurate with regard to overall population characteristics. Responses to a few questions with several possible replies were occasionally so dispersed as to leave some cell frequencies so small that they escape statistical validation. Yet, these data were suggestive and were included in the study, despite a few statistical difficulties, because no data on the subject were heretofore available.

The primary purpose of the study is to provide basic and necessary manpower information essential for planning and developing effective services and programs for the Acoma Pueblo Indians.

Benjamin J. Taylor, Director
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Economic Research

Contents

	Page
On-Reservation Nonfarm Employers	2
Characteristics of the Manpower Resource	3
Age and Sex	3
Family Characteristics	5
Educational Attainment of the Population	9
Utilization of the Human Resource on the Acoma Reservation	12
Labor Force Participation	12
Reason for Not Entering the Labor Force	15
Employment Experience of Those Not Usually Employed	17
Unemployment	20
Underemployment	22
Hours Worked	26
Industry and Occupational Experiences	26
Industry Experiences	26
Occupational Experiences	30
Sources of Income	36
Earned and Unearned Income	36
Sources of Individual Income	40
Those with No Income	44
Earnings from a Trade	44
Self-employment and Ownership Income	45
Income from Handicrafts	46
Assistance Payments	46

	Page
Income from Social Security	47
Unemployment Insurance	47
Most Frequently Mentioned Sources	48
Income by Education and Sex	49
Consumption Patterns	52
Purchase of Goods and Services	53
Method of Payment	54
Method of Payment by Family Income Level	56
Expenditure Patterns	58
Conclusions	61

List of Tables

Table		*Page*
I	Acoma Reservation Nonfarm Indian Employment	2
II	Acoma Population by Age and Sex	4
III	Marital Status of the Population	5
IV	Number of Children Reported by Respondents	6
V	Number of Children by Marital Status	7
VI	Educational Attainment of the Population	9
VII	Major Activity Most of the Year Prior to the Survey	12
VIII	Civilian Labor Force Participation Rates: Acoma Reservation and United States	13
IX	Age Distribution: Acoma and United States	14
X	Female Civilian Labor Force Participation Rates: Acoma Reservation and United States	14
XI	Male Civilian Labor Force Participation Rates: Acoma Reservation and United States	15
XII	Reasons Given for Not Seeking Employment	16
XIII	Marital Status of Women Listing "Family Responsibilities" Reason for Not Looking for Work	16
XIV	Age Distribution of Women Not Seeking Employment Due to Family Responsibilities	17
XV	Time of Last Employment of Those Not in Labor Force	18
XVI	Marital Status of Those Who Never Worked	18
XVII	Age Distribution of Those Who Never Worked	19
XVIII	Marital Status of Those Not Employed for Five or More Years	19

Table		*Page*
XIX	Age Distribution of Those Not Employed for Five or More Years	20
XX	Reason for Leaving Last Job	21
XXI	Distribution of People by Months Worked and Sex	22
XXII	Distribution of Those Who Did Some Work by Number of Months Worked	22
XXIII	Usual Type of Employment	23
XXIV	Distribution of Seasonal Employment	23
XXV	Age Distribution by Number of Months Worked	24
XXVI	Distribution of Months Worked for Married Acomas	24
XXVII	Distribution of Months Worked for Never-Married Acomas	25
XXVIII	Marital Status of Those Who Worked Ten to Twelve Months	25
XXIX	Hours per Week Usually Worked by Employed Acomas	26
XXX	Reasons for Working 35 Hours or Less	27
XXXI	Acoma Employment by Industry Class	28
XXXII	Acoma Employment by Occupational Title	30
XXXIII	Source of Training to Perform Job	34
XXXIV	Individual and Family Income	37
XXXV	Non-Money Income Sources	38
XXXVI	Monetary Equivalent of Non-Money Income	39
XXXVII	Sources of Individual Income	41
XXXVIII	Age Distribution of Females with No Income	43
XXXIX	Age Distribution of Males with No Income	43
XL	Distribution of Earnings from a Trade	44
XLI	Self-employment Income and Income from Ownership	45
XLII	Distribution of Income from Handicrafts	46
XLIII	Percentage of Acomas Receiving Social Security Benefits	47
XLIV	Most Frequently Mentioned Income Source of Females	48
XLV	Most Frequently Mentioned Income Source of Males	49
XLVI	Income by Education and Sex	50
XLVII	Where Goods and Services Are Purchased by Families	53

Table		*Page*
XLVIII	Method of Paying for Family Purchases	54
XLIX	Extent of Cash and Credit Use by Income Level	56
L	Method and Extent of Payment by Family Income Level—Groceries, Auto Repairs, and Clothing	59

Acoma Reservation Manpower Resources

The Acoma Reservation is populated by Pueblo Indians and is purported to be the oldest inhabited settlement in the United States.[1] The reservation takes its name from the old village of Acoma, known as Sky City, and located on a rock mesa 357 feet high.[2] The village was originally constructed for purposes of defense and is still important for religious ceremonies held there periodically. The reservation is located approximately 84 miles west of Albuquerque, New Mexico. In recent years the villages of Acomita and McCartys were constructed as summer villages, which permit families to move closer to the lands they cultivate or on which they graze herds. An inadequate water supply in old Acoma was another factor leading to the establishment of the new villages. All families, however, continue to maintain houses on the high mesa of Acoma.

The Acoma Indians have long been agriculturally oriented with major emphasis on sheep herding and farming. However, they also cultivate wheat, beans, and alfalfa on irrigated land. In addition to sheep, stock raising also includes goats, horses, donkeys, and cattle. Agricultural and stock raising activities are still considered important, but the lack of good land management practices has depleted the soil rendering such endeavors less productive than in the past. As a direct result many families have abandoned agricultural activities.

Pottery is an important handicraft among some of the women, but such an endeavor receives far less attention at present than was the case in earlier years. The lack of market outlets may be a major factor in the decline of this handicraft industry.

Relative geographic stability of the Acoma people over the years in an agricultural society has contributed to their attitudes toward work. Years of experience in tending flocks and cultivating land has instilled into the Indians the necessity to work for one's keep. Idleness is not encouraged among the people. The basic economic unit appears to be moving toward that which prevails in the general society in the sense that major responsibility is shifting from the communal clan orientation to that of the immediate family. The immediate families consisting of husband, wife, and children are becoming more mobile than their ancestors and for economic reasons are reaching to outlying parts of the reservation and are leaving it.

The total population of the Acoma Reservation as of April, 1968 was estimated at 1,654; of this number, 910 persons age 16 or over are listed on the tribal roll. The actual sample size used was 240.

This analysis deals with on-reservation nonfarm employment sources, current characteristics of the manpower resource, employment and unemployment, occupation and industry characteristics, training and education, and income and expenditure patterns.

On-Reservation Nonfarm Employers

As noted above, the Acoma Pueblo Indians have been traditionally oriented toward agricultural pursuits. Nonagricultural work available on the reservation is limited. Table I shows that there are only thirty-nine nonfarm jobs available to the Indians on tribal property. This lack of reservation opportunity stems in part from the location

TABLE I

ACOMA RESERVATION NONFARM INDIAN EMPLOYMENT

Employer	Number Employed
Acoma Tribe	12
Community Action Program	17
Bureau of Indian Affairs Day School	7
Public Health Service Clinic	3
TOTAL	39

of the Bureau of Indian Affairs office in Albuquerque, New Mexico. The Arizona reservations have the federal agency physically located on Indian land, and the agency is an important source of jobs. In New Mexico, however, the BIA operates a day school on the reservation and this provides some employment, but not to the extent that the full agency operating on the reservation might provide. It is obvious that the Indians must either resort to agricultural pursuits on essentially unproductive land or commute to distant places to work.

The Community Action Program is the largest nonfarm employer on the tribally held land and, even so, employs only seventeen Indians. Because of the industrious nature of the Acoma people, the low number of job opportunities may be generating a trend toward disintegration of the ancient family orientations. The assimilation of the Acoma into the larger society may be just over the horizon. Such absorption into the general population depends upon the ability of the people to compete in an unsheltered labor market. Their ability to compete largely depends upon investments made in the human resource both in the past and currently. Human resource characteristics of the on-reservation population reveal the extent and nature of the Acoma manpower potential.

Characteristics of the Manpower Resource

Age and Sex

Table II classifies the Acoma Reservation inhabitants aged 16 and over by age and sex. Approximately 55 percent of the working-age total are women and 45 percent are males. Women outnumber men in every ten-year group under 60 years of age. Men outnumber women only in the groups over 60. It is possible that men under 65 have left the reservation for work. In some cases, entire families may have relocated, but it is more likely that because of unstable employment women may remain on the reservation to care for the young. The 744 children under 16 years of age accounts for the difference between the 910 estimated population of working-force age and the 1,654 total population.

Roughly 13 percent of the total population sampled are in the 16-19 age category. Some of these are still enrolled in high school, but others are currently available for full-time working force activity. Teen-age girls account for a larger proportion (7.5 percent) of the population than do males (5.8 percent).

TABLE II

ACOMA POPULATION BY AGE AND SEX

Age Group	Females		Males	
	Percent of Total Females	Percent of Total Population	Percent of Total Males	Percent of Total Population
16-19	13.5	7.5	13.1	5.8
20-29	20.3	11.3	20.6	9.2
30-39	19.6	10.8	19.6	8.8
40-49	11.3	6.3	10.3	4.6
50-59	18.8	10.4	13.1	5.8
60-69	9.0	5.0	15.0	6.7
70-79	4.5	2.5	6.5	2.9
80-89	3.0	1.7	0.9	0.4
90 or over	0.0	0.0	0.9	0.4
TOTAL	100.0	55.5*	100.0	44.6*

N = 133 females; 107 males.

* The two categories combined do not sum to 100 percent due to rounding.

It is apparent that the largest ten-year age group is the 20-29 category. Females outnumber males and account for 11.3 percent of the total population whereas males account for 9.2 percent. Males in their twenties account for nearly 21 percent of all working-age men and females of the same age constitute 20 percent of total reservation women. The on-reservation population obviously includes enough youth to provide labor services to a wide variety of economic operations. The supply of both young males and females indicates that little difficulty would be entailed in recruiting for reservation employment.

The 30-39 age category contains nearly 20 percent of the total working-force population. Over one-half (10.8 percent) of the total are women. In turn, male and female members of this group each account for about 20 percent of their gender totals. Persons assumed to be most responsible regarding attachment to the labor force and job performance are in this group. Additionally, the weight of family responsibilities normally is heaviest on individuals in their thirties.

Acoma Indians aged 40-49 are not as numerous as the younger categories presented in Table II, but still provide a significant proportion of working-age persons. Females account for 6 percent of the total working age population or 11 percent of tribal women. Males in

this age bracket constitute 5 percent of the total population or 10 percent of tribal men.

The tribal working-age population in their 50's is relatively larger than in the 40-49 bracket. Again, women outnumber the men and females represent nearly 19 percent of all women while men represent 13 percent of all men.

The 60-69 age category is usually considered the upper range of economically productive years. This is not always the case among Indians, and nearly 12 percent of the Acoma working-age population is in this age group. Females of this age represent 5 percent of the tribal population, and males represent nearly 7 percent. Age brackets above 70 have fewer individuals than the others. Persons of such age are not considered important in labor force activity.

In summary, it is found that more Acoma women than men could be involved in labor force activity on the reservation. Since a significant portion of the population is young, there is an initial expectation that labor force participation would be high if job opportunities were available. It is assumed that employers would not recruit persons above age 65. This is particularly the case when there is a surplus pool of younger persons seeking work.

Family Characteristics

Marital status is often an indicator of the need for individuals to participate in labor force activities. Married males are expected to take on responsibilities for supporting families. In recent years, greater opportunities have been afforded women to provide the same function. Their orientation toward work has, however, usually been

TABLE III

MARITAL STATUS OF THE POPULATION

Marital Status	Percent
Married	58.4
Widowed	7.4
Divorced	0.0
Separated	1.3
Never-married	32.9
TOTAL	100.0

N = 231

of a supplementary nature. Table III gives the marital status of the Acoma population on the basis of 231 responses.

Marital Status. Fifty-eight percent of the working-age population are married. Perhaps the youthfulness and the fact that women outnumber men in many age brackets may account for the relatively high percentage (32.9) of Acomas who have never married; the percentage could also reflect the cultural orientation toward the immediate family as the basic economic unit. In addition, some persons regardless of age may not have gained the ability to support a family. This may be more the case among teen-age persons than among other age groups. It seems reasonable that the lack of economic opportunity coupled with imbalance of the sexes provide the best explanations for the relatively low marriage rate among the working-age groups.

The absence of divorce reflects the influence of the Roman Catholic Church. Only 1.3 percent of the population are separated. This record implies high stability of family life on the reservation. The geographic stability of the tribe over the past century and the church influence produces an intolerance for broken families. Widowed individuals account for 7.4 percent of the population and as generally expected they are most numerous among the elderly.

Number of Children. The number of children per family is indicative of economic incentives to seek employment, and also accounts

TABLE IV

NUMBER OF CHILDREN REPORTED BY RESPONDENTS

Number of Children	Percent
None	24.7
One	12.1
Two	12.6
Three	7.9
Four	9.8
Five	8.8
Six	6.1
Seven	7.0
Eight or more	11.2
TOTAL	100.2*

N = 215

* Does not sum to 100 percent due to rounding.

for the financial burdens involved in supporting dependents. Table IV provides insights into the Acoma family size. It can be surmised that a significant proportion of the children of working-age parents are dependent.

The median number of children reported by respondents is three. It is apparent that a significant number of respondents have large numbers of children. Approximately 11 percent of respondents reported eight or more; 7 percent reported seven; 6 percent, six; 9 percent, five; 10 percent, four; 8 percent, three. Large families are an important feature among the Acoma Indians. If support for large family units is a pressure, then the Acoma people may well be anxious to participate in the labor force.

TABLE V
NUMBER OF CHILDREN BY MARITAL STATUS
(Percent)

Marital Status		Number of Children									Info. not Avail.	Total
		1	2	3	4	5	6	7	8+	0		
Married	(1)	13.3	16.3	11.1	12.6	11.9	8.9	7.4	16.3	1.5	0.7	100.0
	(2)	7.5	9.2	6.3	7.1	6.7	5.0	4.2	9.2	0.8	0.4	56.4
Widowed	(1)	23.5	11.8	5.9	11.8	17.7	5.9	5.9	11.8	0.0	5.9	100.2*
	(2)	1.7	0.8	0.4	0.8	1.3	0.4	0.4	0.8	0.0	0.4	7.0
Divorced	(1)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	(2)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Separated	(1)	0.0	33.3	33.3	0.0	0.0	0.0	33.3	0.0	0.0	0.0	99.9*
	(2)	0.0	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.0	1.2
Never-married	(1)	5.3	2.6	0.0	2.6	0.0	0.0	2.6	0.0	67.1	19.7	100.0
	(2)	1.7	0.8	0.0	0.8	0.0	0.0	0.8	0.0	21.3	6.3	31.7
Info. not avail.	(1)	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0
	(2)	0.0	0.0	0.0	0.0	0.0	0.0	3.8	0.0	0.0	0.0	3.8
TOTAL	(2)	10.9	11.2	7.1	8.7	8.0	5.4	9.6	10.0	22.1	7.1	100.1*

N = 240
(1) = Percent of total in each marital status category.
(2) = Percent of total responses.
* Does not sum to 100 percent due to rounding.

Table V provides data regarding the number of children by marital status of the respondent. Included are responses from the never-married group, which constitutes one-third of the total working-age population. Table V permits a calculation of median number of

children for married respondents without including single persons unless they reported having children.

The median number of children reported by respondents in all marital groups is six. This higher median is obtained by eliminating the influence of the never-married category unless they reported having children. The median number of children reported by only married persons is four. In the married category, approximately 16 percent have eight children or more. Only 1.5 percent have no children at all. Seven percent have seven children and another 9 percent reported six. Obviously, married couples on the Acoma Reservation have large families. The necessity to obtain jobs or otherwise find income sources must be pressing. Separated couples do not constitute a large proportion of the total, but about one-third of these couples have seven children and two-thirds have two and three children.

Widowed individuals report a median of four children. One child was the most frequently reported number by 24 percent of respondents. Next in order of magnitude was five children. It is likely that the children reported by the widowed group are no longer dependent. Such individuals presumably are older and have raised children before losing a spouse.

Single persons also reported having children with about 5 percent having one child. Nearly 3 percent have two children and still another 3 percent each report four and seven children, respectively. Nearly 20 percent failed to respond to the question. Perhaps a significant number chose not to reveal having children out of wedlock.

In summary, it is apparent from Tables IV and V that the Acoma Pueblo Indians have large families. The lack of economic opportunities may, however, have caused some to postpone marriage or forego it altogether. The responses from the never-married group regarding the number of children reveal the possibility of a large number of common-law marriages. Common-law marriages may not be considered a form of wedlock to some of the Acoma population, however, in that the Roman Catholic influence has conditioned them toward formal church marriages. The unmarried status of some individuals, particularly among females, may simply reflect the population imbalance between males and females. Even so, the extent of family responsibilities indicates that there should be significant incentive to work, even if it is not expressed by actively seeking employment. The deficiency of job opportunities brings about the lack of search for work.

Educational Attainment of the Population

Employment opportunities over the past several years have been declining for Acoma workers who have less than a high school education. Opportunities for jobs appear to be expanding for those who have completed the full twelve years of secondary education. Persons with college educations beyond high school now have greater opportunities than in the past.[3] A high school diploma may or may not be essential to perform most tasks. Employers, however, commonly apply the high school diploma as the lowest educational level acceptable for

TABLE VI

EDUCATIONAL ATTAINMENT OF THE POPULATION

Educational Attainment by Grade Completed	Female		Male	
	Percent of Total Population	Percent of Total Females	Percent of Total Population	Percent of Total Males
None	1.3	2.3	1.3	2.8
1	1.3	2.3	1.7	3.7
2	0.4	0.8	2.1	4.7
3	1.3	2.3	2.9	6.5
4	2.1	3.8	1.7	3.7
5	2.9	5.3	0.4	0.9
6	1.7	3.0	2.5	5.6
7	5.0	9.0	1.7	3.7
8	3.3	6.0	6.7	15.0
9	7.5	13.5	3.3	7.5
10	10.0	18.0	5.0	11.2
11	3.3	6.0	4.2	9.4
12	13.8	24.8	7.5	16.8
13	0.4	0.8	1.3	2.8
14	0.0	0.0	0.8	1.9
15	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0
17+	0.0	0.0	0.0	0.0
Info. not available	1.3	2.3	1.7	3.7
TOTAL	55.6*	100.2**	44.8*	99.9**

N = 133 females; 107 males.

* The two categories combined do not sum to 100 percent due to rounding.

** Rounding error accounts for the discrepancy in sums.

employment. Table VI presents the educational attainments of Indians residing on the Acoma Reservation.

No Acoma Indian on the reservation possesses a college degree. It is, of course, possible that some Acoma have a degree, but have found it necessary to establish residence in other areas in order to find employment that would utilize such training. Less than 1 percent of females completed even one year of college. Approximately 5 percent of men went to college, but did not remain to complete degree requirements. It appears that Indian men are more likely to go on to college than women and remain longer once they start. Possibly the absence of incentive or financial support terminates the college program short of the four years needed for graduation.

Completion of high school is more likely among Acoma females than males; only 17 percent of men earn diplomas compared to 25 percent for women. Together, men and women with high school educations constitute only 21 percent of the working-age population. Only 2.5 percent of the working-age population has gone on to college for brief periods. Despite any desires the Indians might have to participate in the general labor force, at least three-fourths of the Acomas might be eliminated at the time employment applications are filed. If most employers require high school diplomas to permit addition to their work forces at the entry level, a large majority of the Acoma people cannot compete for jobs.

The agricultural orientation on the Acoma Reservation partially explains the low occurrence of high school completion among men. Many men, no doubt, were at an early age required to expend their labor on family acreage. Large family size would also have placed burdens on the eldest male children. Pressing family need for subsistence may also have made it necessary for males to hire out as agricultural laborers at an early age. These work requirements would have interfered with the completion of high school. Conversely, females have fewer opportunities to supplement family income, even on farms, and, therefore, are freer to remain in school longer than males.

Support for such reasoning is available in Table VI. Nearly 15 percent of working-age men dropped out of school after completing the eighth grade whereas only 6 percent of females did so. The female dropout rate accelerated after entry into high school and is greater than for men at the close of grades nine and ten, but falls below that of men at the close of grade eleven. The dropout rate for men is greater than for women at most grade levels under eight. Such

low educational attainment is probably associated with older persons because the requirements of the agricultural society was a burden on the older generation.

It is unmistakably clear that significant training will be necessary to permit the Acoma to compete successfully in the general labor market. Seventy-six percent of the population aged 16 and over has attained less than twelve years of formal education, and twelve years of schooling is a minimal standard required by most employers for hiring. It will be difficult to attract industry to the reservation, given the current educational level of the working-age population. The median years of formal education completed is nine for men and ten for women. Training requirements, while substantial, may be somewhat less for women than for men.

Nearly 8 percent of 235 respondents revealed that they had undertaken technical or vocational training in attempts to prepare for labor force participation. Such endeavors are not adequate in terms of total Acoma need. Training alone is also inadequate unless jobs are made available to those who desire them. The majority of the on-reservation Indians are in an unemployable state.

Facility in English. Low educational attainments associated with geographic isolation of many Indians leads to the question of their ability to receive and execute commands in English. Respondents were asked three questions regarding their ability to utilize the English language. They were first asked: "What language do you most frequently speak in the home?" Seventy-one percent of 235 respondents revealed that their Indian language is normally used in their homes. The remaining 29 percent usually speak English at home and elsewhere.

The use of an Indian language most frequently in the home does not indicate an inability of the Acoma Reservation Indians to speak English. To verify this, respondents were asked: "Do you speak English?" Ninety-two percent of 235 said that they were able to communicate in English. Only 8 percent are unable to do so. Additionally, 88 percent read English, and 12 percent do not. The ability to speak but not read is probably confined to the very old since it is unlikely they have had formal education. While some of the elderly may have had two to six years of formal training, they remain essentially functional illiterates. It is recognized that language training for the elderly is economically unnecessary; but language instruction for the young is requisite for labor force preparation. A great deal of language efficiency is lost when tribesmen, over extended periods of

time, neglect the use of English in order to communicate in their own Indian language. Basic educational skills training is required as well as work-related skills training if there is ever a commitment to utilize Indian power.

Utilization of the Human Resource on the Acoma Reservation

Population registers maintained by the BIA for the Pueblo of Acoma are not accurate. Although this list contains 1,654 names of people 16 years of age or older, when a random sample of 500 of these names was selected only 275 could be located on the reservation. On the basis of the proportion of those in the sample that could be located, the population 16 years of age and over is estimated at 910 people. It should be noted that some of the members of the Acoma community not living on the reservation live in Grants, New Mexico, which is approximately 25 miles from the reservation. These individuals usually maintain close ties with the reservation. Since this study was directed toward the on-reservation population, no attempt was made to contact those members of the Acoma Tribe that now reside off the reservation.

TABLE VII

MAJOR ACTIVITY MOST OF THE YEAR PRIOR TO THE SURVEY

Activity	Percent
Working	40.8
With a job but not at work	0.0
Looking for work	0.4
Keeping house	29.2
Going to school	16.3
Unable to work	7.1
Retired	2.1
Other	4.2
TOTAL	100.1*

N = 240

* Does not sum to 100 percent due to rounding.

Labor Force Participation

Those persons interviewed were asked about their activity during most of the year prior to the 1968 survey. Their responses to this

question are reported in Table VII. It is seen that 40.8 percent of the people in the survey reported that they were employed during the year prior to the survey. Less than one-half of one percent of the working-age population was looking for work most of the year prior to the survey.

An individual is classified as being in the labor force if he is working, looking for work, or with a job but not working. Labor force participation rates for various age groups are presented in Table VIII. The overall labor force partcipation rates on the Acoma Reservation are well below those for the United States. One of the outstanding differences between Acoma and the U. S. rates occurs in the 16-19 year old age group. The U. S. rates are approximately five times the estimated Acoma rate.

Like the pattern for the United States, Acoma labor force participation rates increase for successive age groups through the 40-49 group, but starting with the 50-59 group, the Acoma participation drops off. This suggests that Acomas withdraw from the labor force at an earlier age than do workers in the United States in general.

TABLE VIII
CIVILIAN LABOR FORCE PARTICIPATION RATES:
ACOMA RESERVATION AND UNITED STATES
(Percent by age group)

Age Group	Acoma	U. S.
16-19	9.4	44.2
20.29	42.9	67.0
30-39	53.2	70.3
40-49	57.7	73.4
50-59	46.2	74.2
60 and over	29.8	29.5
All age groups	40.0	59.4

Source: Manpower Report of the President, 1964, for U.S. rates.

Some of the difference between the overall U. S. labor force participation rate and the Acoma participation rate can be explained by the difference in age distributions. Table IX reveals that the Acoma population is younger than the population of the United States in general. Since labor force participation rates of those in the younger age groups tend to be lower than labor force participation of older

workers, the youthfulness of the Acoma population tends to depress the overall rate for the Acoma Reservation.

TABLE IX
AGE DISTRIBUTION: ACOMA AND UNITED STATES
(Percent 16 years of age or older)

Age Group	Acoma	U. S.
16-19	13.3	8.7
20-29	20.4	17.9
30-39	19.6	20.2
40-49	10.8	18.6
50-59	16.3	14.9
60-69	11.7	11.1
70 and over	7.9	8.5
TOTAL	100.0	99.9*

N = 240
* Does not sum to 100 percent due to rounding.
Source: U.S. Census of Population, 1960, for U.S. age distribution.

Table X illustrates that the labor force participation rates for age groups of Acoma women are less than half the rates for working-age U. S. women. Teen-age females are not oriented toward labor force activity. Labor force participation rates for Acoma women remain approximately the same for all age groups from 20-60.

TABLE X
FEMALE CIVILIAN LABOR FORCE PARTICIPATION RATES:
ACOMA RESERVATION AND UNITED STATES
(Percent by age group)

Age Group	Acoma	U. S.
16-19	0.0	37.4
20-29	22.2	49.2
30-39	23.1	45.2
40-49	26.7	52.2
50-59	28.0	55.9
60 and over	9.1	17.8
All age groups	18.8	41.5

Source: Manpower Report of the President, 1964, for U.S. rates.

One of the unusual characteristics of labor force participation on the Acoma Reservation is the high participation rates for specific age groups of males. As shown in Table XI, the labor force participation rate for males in the 30-49 age group compares well with the U. S. labor force participation rate. This is also the case with the 60 and over group. All the age groups for male Acomas (except the 16-19

TABLE XI
MALE CIVILIAN LABOR FORCE PARTICIPATION RATES:
ACOMA RESERVATION AND UNITED STATES
(Percent by age group)

Age Group	Acoma	U. S.
16-19	21.4	51.4
20.29	68.2	88.0
30-39	90.5	97.8
40-49	100.0	96.3
50-59	78.6	92.3
60 and over	48.0	44.2
All age groups	66.4	79.7

Source: Manpower Report of the President, 1964, for U.S. rates.

group) show that labor force participation is the rule rather than the exception. Acoma men seem to prefer work when it can be found, and they appear to seek it.

In summary, the data reveal that the (a) labor force participation rates of young male and female Acomas is very low, (b) labor force participation rates of male Acomas 20 and over is quite high, and (c) labor force participation rates of Acoma women is low.

Reason for Not Entering the Labor Force

More than half of the surveyed members of the Pueblo of Acoma did not work during the year prior to the survey. This is well above the national average. The question arises as to how many of those that did not work sought work. Of the 124 respondents that responded that they did not work at all during the year prior to the survey, 120 reported that they did not seek work. It would appear that almost all of those that do not work do not seek work.

TABLE XII
REASONS GIVEN FOR NOT SEEKING EMPLOYMENT

Reason	Percent of Those Not in Labor Force*
Believes no work is available	1.7
Couldn't find work	0.0
Lacks necessary schooling, training, or experience	2.5
Employers think too young or too old	2.5
Personal handicap	0.8
Can't arrange for child care	1.7
Family responsibilities	47.5
In school or other training	19.2
Ill health or physical handicap	15.0
Other	12.5
Don't know	3.3

N = 120
* Does not sum to 100 percent due to multiple responses.

The individuals who did not seek work were asked for their reasons for not seeking employment. The responses to this question are reported in Table XII. As shown in the table, family responsibilities is reported as the most frequent reason for not seeking employment. Almost all of those listing family responsibility as a reason for not seeking employment were women. These data suggest that

TABLE XIII
MARITAL STATUS OF WOMEN LISTING "FAMILY RESPONSIBILITIES" REASON FOR NOT LOOKING FOR WORK

Marital Status	Percent
Married	75.9
Widowed	9.3
Divorced	0.0
Separated	3.7
Never-married	9.3
Info. not available	1.9
TOTAL	100.1*

N = 54
* Does not sum to 100 percent due to rounding.

the low labor force participation rates on the Acoma Reservation can be explained by the unwillingness of women to seek work because of family responsibilities. This may be especially true if they are required to work off the reservation. As shown in Table XIII, more than 75 percent of the women listing this reason for not seeking employment are married, and they are found over all age groups. The data suggest that family responsibility as a reason for not seeking employment does not disappear beyond child-rearing ages. Many of the women listing this reason for not seeking employment belong to an older age group. The response implies that the women are unwilling or unable to leave the reservation to work. If there were on-reservation opportunities, a different response might be forthcoming.

TABLE XIV
AGE DISTRIBUTION OF WOMEN NOT SEEKING EMPLOYMENT DUE TO FAMILY RESPONSIBILITIES

Age Group	Percent
16-19	0.0
20-29	13.0
30-39	35.2
40-49	18.5
50-59	22.2
60-69	7.4
70 and over	3.7
TOTAL	100.0

N = 54

Employment Experience of Those Not Usually Employed

Those people who did not work in the year prior to the survey were asked: "When did you last seek a regular full- or part-time job or business?" Usable responses were received from 118 Acomas. None of these people are in the labor force. Table XV reveals that 59.3 percent of those who did not work in the year prior to the survey have never worked. An additional 27.1 percent of those that did not work in the year prior to the survey have not worked for five or more years. Together these two groups comprise more than 86 percent of those who did not work in the year prior to the survey.

TABLE XV

TIME OF LAST EMPLOYMENT OF THOSE NOT IN LABOR FORCE

Time	Percent Responding
Within past twelve months	2.5
One to two years ago	1.7
Two to three years ago	4.2
Three to four years ago	0.9
Four to five years ago	4.2
Five or more years ago	27.1
Never worked	59.3
TOTAL	99.9*

N = 118

* Does not sum to 100 percent due to rounding.

These people have been isolated from the labor market for a considerable period of time. Their lack of participation in the labor market cannot be attributed to short-run factors.

Approximately two-thirds of those who have never worked are females. The marital status of those who never worked is reported in Table XVI. As shown in the table, the working-age female contingent is made up of married and widowed women. It would appear that marriage offers the best explanation for women not entering the labor force. The age distribution of those who have never worked

TABLE XVI

MARITAL STATUS OF THOSE WHO NEVER WORKED

(Nonstudents)

Marital Status	Percent Female	Percent Male
Married	65.0	50.0
Widowed	20.0	8.3
Divorced	0.0	0.0
Separated	2.5	0.0
Never-married	7.5	33.3
Info. not available	5.0	8.3
TOTAL	100.0	99.9*

N = 40 females; 12 males.

* Does not sum to 100 percent due to rounding.

TABLE XVII
AGE DISTRIBUTION OF THOSE WHO NEVER WORKED

Age Group	Percent Female	Percent Male
16-19	2.5	8.3
20-29	17.5	16.7
30-39	15.0	8.3
40-49	5.0	0.0
50-59	22.5	8.3
60-69	17.5	25.0
70 and over	20.0	33.3
TOTAL	100.0	99.9*

N = 40 females; 12 males.
* Does not sum to 100 percent due to rounding.

is presented in Table XVII. The age distribution of females does not seem to explain the absence from the labor force of women. Men who have never worked are concentrated in the older age group; more than a third are 70 years of age and older, and an additional 25 percent are between 60-69 years of age. Age appears to be a good explanation of the lack of labor force participation of men. Some of the very old men may never have considered themselves as being employed.

The pattern is very similar for those who have not worked for five or more years. Marital status of those who have not worked for five or more years is presented in Table XVIII Most of these people are

TABLE XVIII
MARITAL STATUS OF THOSE NOT EMPLOYED FOR FIVE OR MORE YEARS
(Nonstudents)

Marital Status	Percent Female	Percent Male
Married	72.0	85.7
Widowed	12.0	0.0
Divorced	0.0	0.0
Separated	4.0	0.0
Never-married	8.0	0.0
Info. not available	4.0	14.3
TOTAL	100.0	100.0

N = 25 females; 7 males.

married. The age distribution of the same group is presented in Table XIX and while females appear in all age groups, the males are concentrated in the older age groups. Again, it seems that marital status offers the best explanation for the lack of labor force participation of women and age offers the best explanation for non-participation of men. These findings are compatible with the general pattern of labor force participation rates for the Acoma Reservation.

TABLE XIX

AGE DISTRIBUTION OF THOSE NOT EMPLOYED FOR FIVE OR MORE YEARS

Age Group	Percent Female	Percent Male
16-19	0.0	0.0
20-29	4.0	14.3
30-39	32.0	0.0
40-49	20.0	0.0
50-59	28.0	0.0
60-69	8.0	42.9
70 and over	8.0	42.9
TOTAL	100.00	100.1*

N = 25 females; 7 males.

* Does not sum to 100 percent due to rounding.

The low level of labor force participation by Acoma women is a reflection of the role of the female in Acoma society. Males, on the other hand, have high labor force participation rates. It appears that the most important reason for male nonparticipation is age.

Those people who were not employed during the year previous to the survey but were employed at some time in the past were asked why they left their last job. The responses to this question are reported in Table XX. Personal reasons appear to be the most important factor in the decision to terminate employment. Economic conditions do not appear to be significant factors.

Unemployment

The first IMRS question asks the respondent about his usual activity during the year prior to the survey. This question attempts to ascertain the level of employment, labor force participation, and unemployment on the basis of the respondent's recollection of his

usual activity over a one-year span. Bias can enter into the response to this question due to the imperfect recollection of individuals, or because of differences in the interpretation of the question. That is, a person who worked two or three months may think he worked longer or may regard two or three months as working most of the year. Another example of difficulty in interpretation arises from the meaning of looking for work most of the year. A person may look for work one day each month and not think this constitutes a consistent activity. It is not clear how this person would respond to the

TABLE XX
REASON FOR LEAVING LAST JOB

Reason	Percent Responding
Personal, family or school	69.6
Health	0.0
Retirement or old age	10.9
Seasonal job completed	6.5
Slack work or business conditions	6.5
Temporary nonseasonal job completed	0.0
Unsatisfactory work conditions	0.0
Other	6.5
TOTAL	100.0

N = 46

questionnaire. In summary, the first question on the IMRS questionnaire should indicate labor force participation and employment reasonably well. Measures of unemployment may be unusually low since it is not likely that individuals will spend most of the year in the process of searching for employment. If employment is not found in a short period of time, individuals will most likely withdraw from the labor force. This will tend to keep the unemployment rate at a low level through adjustment in the size of the labor force.

The response to question one appears to understate the extent of unemployment on the Acoma Reservation since the results suggest an unemployment rate of only 1 percent. At another point in the questionnaire, respondents who had not worked in the year prior to the survey were asked if they had sought employment at any time. Only five of 124 respondents replied that they had sought work. The belief that no work was available may have influenced their action.

This belief may have been reinforced over the years as a consequence of consistent lack of success.

Conventional measures of unemployment do not indicate a high unemployment rate on the Acoma Reservation. Only a small portion of the people who sought work were unable to find work. Due to the small number of people in this category, detailed characteristics of the unemployed are not available.

Underemployment

Only a small portion of the Acoma residents were employed from ten to twelve months, as shown in Table XXI. Only 44.9 percent of

TABLE XXI
DISTRIBUTION OF PEOPLE BY MONTHS WORKED AND SEX

Months Worked	Percent of Population	Percent Female	Percent Male
0	51.7	72.9	25.2
1 - 3	8.3	6.0	11.2
4 - 6	7.1	3.8	11.2
7 - 9	6.3	5.3	7.5
10 - 12	26.6	12.0	44.9
TOTAL	100.0	100.0	100.0

N = 133 females; 107 males.

the male Acomas worked between ten and twelve months. The 12 percent of females working between ten and twelve months is low.

TABLE XXII
DISTRIBUTION OF THOSE WHO DID SOME WORK
BY NUMBER OF MONTHS WORKED

Months Worked	Percent of Total
1 - 3	17.2
4 - 6	14.7
7 - 9	12.9
10 - 12	55.2
TOTAL	100.0

N = 116

Of those members of the Acoma community who did any work during the year prior to the survey, only 55.2 percent worked between ten and twelve months, as shown in Table XXII.

Respondents were also asked if they usually worked year-round. Their replies are recorded in Table XXIII. Of those responding, 61.6 percent worked year-round. This suggests that some of those who worked less than ten months consider their employment year-round. Seasonal employment was reported by 25 percent of those that did some work in the year prior to the survey. Approximately 38 percent

TABLE XXIII
USUAL TYPE OF EMPLOYMENT

Type of Employment	Percent of Workers
Year-round	61.6
Seasonal	25.0
Irregular	13.4
TOTAL	100.0

N = 112

of the working-age population work only seasonally or irregularly. Such a high percentage attests to the lack of reservation opportunities for work. Seasonal employment is most important during the summer months as reported in Table XXIV. In summary, of those people on the Acoma Reservation who did work in the year prior to the survey, a large portion worked only part of the year. Spring and summer work activity implies the use of Acomas in agriculture. Spring may coincide with planting activities and the fall with harvesting. During the winter, work in agriculture reaches its lowest point.

TABLE XXIV
DISTRIBUTION OF SEASONAL EMPLOYMENT

Season	Percent of Seasonal Workers Employed*
Spring	39.3
Winter	10.7
Fall	35.7
Summer	82.1

N = 28
* Does not sum to 100 percent due to multiple responses.

The relationship between age and number of months worked in the year prior to the survey is presented in Table XXV. Of those working one to three months, 65 percent are in the two youngest age groups. Of those who worked ten to twelve months, 50 percent are in the 30-49 age group. Establishment of individuals in relatively full-time employment seems to require a considerable span of time for Acomas.

TABLE XXV
AGE DISTRIBUTION BY NUMBER OF MONTHS WORKED
(Percent)

	Months Worked				
Age Group	0	1-3	4-6	7-9	10-12
16-19	16.9	45.0	0.0	6.7	1.6
20-29	16.1	20.0	41.2	20.0	18.8
30-39	16.9	15.0	17.7	13.3	32.8
40-49	8.1	0.0	11.8	20.0	17.2
50-59	15.3	5.0	23.5	26.7	17.2
60-69	12.9	15.0	5.9	13.3	9.4
70 and over	13.7	0.0	0.0	0.0	3.1
TOTAL	99.9*	100.0	100.1*	100.0	100.1*
Number in each group	124	20	17	15	64

* Does not sum to 100 percent due to rounding.

Data on marital status and number of months worked are illustrated in three tables. Table XXVI reveals that 79.7 percent of married females did not work at all. Only 1.5 of married women had

TABLE XXVI
DISTRIBUTION OF MONTHS WORKED FOR MARRIED ACOMAS

Months Worked	Percent Female	Percent Male
0	79.7	18.2
1 - 3	4.4	1.5
4 - 6	5.8	12.1
7 - 9	8.7	9.1
10 - 12	1.5	59.1
TOTAL	100.1*	100.0

N = 69 females; 66 males.
* Does not sum to 100 percent due to rounding.

worked between ten and twelve months of the prior year. Only 59 percent of married males had worked ten to twelve months.

Never-married female Acomas are more likely to have worked than the married Acoma women. Even so, neither are likely to be attached to the work force to any considerable extent. As indicated in Table XXVII, a large proportion of never-married Acoma females (60.5 percent) did not work in the year prior to the survey. Yet, of the never-married females, 23.4 percent had worked between ten

TABLE XXVII

DISTRIBUTION OF MONTHS WORKED FOR NEVER-MARRIED ACOMAS

Months Worked	Percent Female	Percent Male
0	60.5	33.3
1 - 3	11.6	30.3
4 - 6	2.3	9.1
7 - 9	2.3	3.0
10 - 12	23.4	24.2
TOTAL	100.1*	99.9*

N = 43 females; 33 males.

* Does not sum to 100 percent due to rounding.

and twelve months. The proportion of never-married females is much higher than the proportion of married females working ten to twelve months. Never-married males are much less likely to be employed ten to twelve months than are married males. More than 63 percent of the never-married males in the survey worked three months or less. Table XXVIII shows that a very high percentage of

TABLE XXVIII

MARITAL STATUS OF THOSE WHO WORKED TEN TO TWELVE MONTHS

Marital Status	Percent Female	Percent Male
Married	85.7	75.0
Widowed	0.0	12.5
Divorced	0.0	0.0
Separated	0.0	0.0
Never-married	14.3	12.5
TOTAL	100.0	100.0

N = 7 females; 15 males.

all those who worked between ten and twelve months were married. This is true for both males and females. In summary, marriage tends to encourage full-time male employment and discourage year-round female employment. A high percentage of those who do work year-round are married. Family responsibilities of females are reflected in this data and support the answers given by women regarding their reasons for not seeking employment.

Hours Worked

Those Acomas who do work tend to work full time when they are working. Interviewees were asked how many hours per week they worked and the responses are reported in Table XXIX. About 88 percent of those responding reported that they ordinarily work 35 hours or more per week. Those people who worked less than 35 hours per week were asked their reasons for so doing. The responses are reported in Table XXX. Economic conditions were not the main reason cited for working less than 35 hours per week. One-third desired part-time work because of housework and other responsibilities. Nearly 42 percent did state that their jobs required less than 35 hours per week.

Industry and Occupational Experiences

Industry Experiences

The industry and occupational distribution of the Acoma on-reservation Indians has in the past five years been limited. Table

TABLE XXIX

HOURS PER WEEK USUALLY WORKED BY EMPLOYED ACOMAS

Hours	Percent of Total
1 - 14	3.5
15 - 29	3.5
30 - 34	4.4
35 - 39	4.4
40	65.8
41 - 48	14.0
49 - 59	3.5
60 or more	0.9
TOTAL	100.0

TABLE XXX
REASONS FOR WORKING 35 HOURS OR LESS

Reason	Percent of Those Working 35 Hours or Less
Slack work	0.0
Material shortage	0.0
Plant or machine repair	0.0
Could only find part-time work	8.3
Labor dispute	0.0
Bad weather	0.0
Own illness	0.0
Too busy with housework, school, business, personal, etc.	33.3
Did not want full-time work	0.0
Full-time work under 35 hours	41.7
Other reason	16.7
TOTAL	100.0

N = 12

XXXI reveals past and present employment and industry experiences of tribesmen. The identified industries include both on- and off-reservation sources. The data are based on 129 responses.

The industry classes in which relatively the most Acoma Pueblo Indians have had experience include government, wholesale and retail trade, and mining. The federal government is by far the single most important source of work experience for the Indians. However, very little work is provided on the reservation. Most are required to commute daily or weekly to the United Pueblo Agency facilities located approximately 84 miles away in Albuquerque, New Mexico. Local government employment experiences over the past five years have been confined to tribal government positions, which are limited in number. Both federal and local government experiences account for 30 percent of all industry attachments over the period of time just mentioned. Tribal employment could be developed by more intensive efforts to attract tourists to "Sky City," the name commonly used to refer to the ancient city of Acoma. The Indians close down the city during peak tourist seasons for ancient Indian religious purposes and this, too, has the effect of limiting employment and income generation for tribesmen.

TABLE XXXI
ACOMA EMPLOYMENT BY INDUSTRY CLASS
(Number and percent)

Code	Industry	Number		Percent of Total
	AGRICULTURE, FORESTRY, AND FISHERIES			
01	Agricultural production	12		
	Subtotal		12	9.3
	MINING			
10	Metal mining	21		
	Subtotal		21	16.3
	CONTRACT CONSTRUCTION			
15	Building construction—general contractors	5		
16	Construction other than building - general contractor	4		
	Subtotal		9	7.0
	MANUFACTURING			
24	Lumber and wood products, except furniture	3		
33	Primary metal industries	2		
34	Fabricated metal products, except ordnance, machinery, and transportation equipment	2		
36	Electrical machinery, equipment, and supplies	1		
	Subtotal		8	6.2
	TRANSPORTATION, COMMUNICATION, ELECTRIC, GAS, AND SANITARY SERVICES			
40	Railroad transportation	4		
	Subtotal		4	3.1
	WHOLESALE AND RETAIL TRADE			
50	Wholesale trade	1		
53	Retail trade—general merchandise	6		
54	Food stores	3		
55	Automotive dealers and gasoline service stations	1		
58	Eating and drinking places	12		
	Subtotal		23	17.8
	SERVICES			
70	Hotels, rooming houses, camps, and other lodging places	6		
75	Auto repair, service and garages	1		
80	Medical and other health services	1		
88	Private households	5		
	Subtotal		13	10.1

TABLE XXXI (continued)

Code	Industry	Number	Percent of Total
	GOVERNMENT		
91	Federal government	35	
93	Local government	4	
	Subtotal	39	30.2
TOTAL		129	100.0

N = 129

On-reservation Indians have had experience in wholesale and retail trade, which accounts for nearly 18 percent of industry associations during the past five years. Their work is primarily in restaurants and general merchandising stores. Little employment is found in gasoline service stations and specialized supermarkets.

Mining activities have provided work experiences to Acoma males. Sixteen percent of all recent mining employment has been in the Anaconda uranium operation near the reservation, but in recent years, the operation has declined in importance.

The services industry is an important one for the Acoma. Approximately 10 percent of all industry experience falls in this category. The tourist attractions in New Mexico have provided work opportunities in hotels and other lodging places, and in automobile service and repairs. In addition, private household work as domestics is important to labor force Acoma women. Such work in services is almost entirely concentrated in off-reservation locations.

Agriculture is less important to the population currently than has been the case in the past and only 9 percent report recent experience in such activities. As mentioned, depletion of the on-reservation lands for agricultural and related purposes partially explains the low labor incidence of this type. Continued mechanization of agriculture in general has also influenced the availability of farm work off the reservation. Increasingly, opportunities in the agriculture industry will decline.

Relatively less important industries for employment include contract construction, manufacturing, and transportation. Three percent of respondents reveal that they have had experience with railroad companies. Opportunities in railroad transportation are declining. Another 6 percent of Acomas have worked in manufacturing of

various types. Lumber and wood products reflect the existence of the lumber stands on the reservation; some Indians have been employed in lumber mill operations. Still another 7 percent have had experience in the construction industry; the skills developed there may be important for possible reservation projects in the near future.

The particular industries in which the Acoma Reservation residents have experience are those that generally require relatively unskilled labor. Even so, employment opportunities have been limited usually to jobs at the entry level, and to jobs that are highly sensitive to general economic conditions. More information in this regard is available by a review of occupational experiences within the industry classifications mentioned.

Occupational Experiences

The 129 Acoma respondents provided information regarding the particular jobs they performed within the various industry classifications. Their description of on-job duties permitted classification by use of the *Dictionary of Occupational Titles*. The results are illustrated in Table XXXII.

TABLE XXXII
ACOMA EMPLOYMENT BY OCCUPATIONAL TITLE
(Number and percent)

Code	Description	Number		Percent of Total
	PROFESSIONAL, TECHNICAL, AND MANAGERIAL OCCUPATIONS			
00, 01	Occupations in architecture and engineering	3		
07	Occupations in medicine and health	2		
09	Occupations in education	1		
18	Managers and officials, not elsewhere classified	2		
19	Miscellaneous professional, technical, and managerial occupations	2		
	Subtotal		10	7.8
	CLERICAL AND SALES OCCUPATIONS			
20	Stenography, typing, filing, and related occupations	2		
21	Computing and account–recording occupations	1		
22	Material and production recording occupations	1		
24	Miscellaneous clerical occupations	1		
29	Merchandising occupations, except salesmen	5		
	Subtotal		10	7.8

TABLE XXXII (continued)

Code	Description	Number		Percent of Total
	SERVICE OCCUPATIONS			
30	Domestic service occupations	15		
31	Food and beverage preparation and service occupations	15		
32	Lodging and related service occupations	8		
35	Miscellaneous personal service ooccupations	4		
37	Protective service occupations	3		
38	Building and related service occupations	4		
	Subtotal		49	38.0
	FARMING, FISHERY, FORESTRY, AND RELATED OCCUPATIONS			
41	Animal farming occupations	8		
42	Miscellaneous farming and related occupations	2		
	Subtotal		10	7.8
	PROCESSING OCCUPATIONS			
50	Occupations in processing of metal	1		
57	Occupations in processing of stone, clay, glass, and related products	1		
	Subtotal		2	1.6
	MACHINE TRADE OCCUPATIONS			
61	Metalworking occupations not elsewhere classified	2		
62, 63	Mechanics and machinery repairmen	6		
66	Wood machining occupations	2		
	Subtotal		10	7.8
	BENCH WORK OCCUPATIONS			
73	Occupations in fabrication and repair of products made from assorted materials	1		
	Subtotal		1	0.8
	STRUCTURAL WORK OCCUPATIONS			
80	Occupations in metal fabricating not elsewhere classified	2		
81	Welders, flame cutters, and related occupations	5		
82	Electrical assembling, installing, and repairing	1		
85	Excavating, grading, paving, and related occupations	3		
86	Construction occupations not elsewhere classified	8		
89	Structural work occupations not elsewhere classified	3		
	Subtotal		22	17.1

TABLE XXXII (continued)

Code	Description	Number	Percent of Total
	MISCELLANEOUS OCCUPATIONS		
90	Motor freight occupations	1	
91	Transportation occupations not elsewhere classified	9	
92	Packaging and materials handling occupations	1	
93	Occupations in extraction of minerals	2	
94	Occupations in logging	1	
95	Occupations in production and distribution of utilities	1	
	Subtotal	15	11.6
TOTAL		129	100.3*

N = 129

* Does not sum to 100 percent due to rounding.

Despite the importance of government as an industry class, service occupations constitute the single most important source of present and past work experiences. Thirty-eight percent of respondents have provided service types of functions across industry classes. For example, a significant number of Indians working for the federal government provide services similar to those of domestics in private households; for instance, work by both women and men as hospital helpers and attendants. Food and beverage preparation in the form of cook helpers, kitchen helpers, waiters, and cooks are services commonly identified by respondents. The range of tasks required in hotels and motels are also found to consist of lower level services; maids or housekeeper services are performed by the women. In short, all the service experiences are concentrated largely in pursuits requiring little specific training, if any. The lack of training requirements for such occupations places most of the people in highly seasonal and vulnerable employment.

Structural work occupational experiences were revealed by 17 percent of persons sampled. The category includes metal fabrication, welders, electrical assembly and repair, excavation and grading, and construction work. Some of the job descriptions undoubtedly require considerable skills and experience for efficient performance. The list of occupations reveals that some persons currently or in the recent past have performed some work related to tasks in common demand by most employers.

Nearly 8 percent of the working-age population have had experience in professional, technical, and managerial occupations. These include health, education, and managerial functions. Among the more prominent tasks are test technicians, practical nurses, store manager, assistant instructor, and community organization workers. Another 8 percent revealed that farm occupations are among recent experiences; sheepherders and ranch hands predominated the reported activity. Jobs connected with the growing of crops were not reported by respondents.

Still another 8 percent of the population revealed basic clerical and sales occupational experience. The majority serve as clerks in retail stores; however, some have knowledge of normal office functions such as typing and filing.

The processing occupations are not well represented. Only 2 percent revealed such experiences; some work in the mines, and others mold pottery for sale as handicrafts. The table seems to indicate that few of the Acoma continue to work at pottery making. The competition from a large number of other reservations and lack of sufficient retail outlets may be forcing most of those with such knowledge to withdraw from the effort.

Metal work, machine repair, and woodworking occupations have engaged about 8 percent of the population at some time over the past five years. Possession of these skills would generally provide opportunity for greater mobility in the general labor market if the people were inclined to move where such skills are in demand.

Nearly 12 percent of the population have miscellaneous experience in such jobs as motor freight, transportation, extraction of minerals, and logging. Most work in the category has been related to the fortunes of railroading. The railroads have employed several of the reservation men over the years. However, opportunities to work at the occupation in this category are dwindling.

In summary, the Acoma Reservation people have occupational experiences that range from the technical category to the unskilled low labor market entry level occupations. Acomas are not well prepared to compete for jobs in a general labor market with national unemployment rates even as high as 3.5 to 4 percent. Most may find that their greatest success in obtaining jobs coincides with periods of relatively high levels of economic activity. This feature of the manpower resource indicates that the Acoma may withdraw from actively seek-

ing employment during periods of relatively low aggregate demands for goods and services.

Location of Present Job. Respondents were asked to reveal if their present or usual job is located off or on the reservation. Sixty-three percent of 116 individuals reported that their usual jobs are off the reservation. The remaining 37 percent are engaged in farm and nonfarm work on the reservation. Much of the on-reservation work is irregular in nature. Few employment opportunities are available on the Acoma Reservation.

Source of Learning Present Job. Individuals usually working were asked to reveal where they had learned to perform their present job. Table XXXIII illustrates the various sources of learning on the basis of 116 replies.

TABLE XXXIII

SOURCE OF TRAINING TO PERFORM JOB

Source	Percent
Taught by employer	81.0
Government training program	5.2
Armed services	0.9
Formal schooling	6.9
Other	6.0
TOTAL	100.0

N = 116

By far the most important source of learning to perform work assignments is on-the-job training by employers as revealed by eighty-one percent of the respondents. Most employers want work assignments to be executed in a specific fashion; therefore general educational attainments must be supplemented by specific on-the-job training in most cases. Unskilled work in particular reflects little carry-over from formal training except when record-keeping or reading is involved. It has already been demonstrated that very few jobs held by Indians carry such responsibilities.

Five percent considered they were prepared to perform their jobs upon completion of government training programs. Approximately 1 percent found their experiences in the Armed Forces provided sufficient skills for them to perform current jobs. Formal education was the source of learning jobs for 7 percent of the respondents.

These skills developed usually entail typing, shorthand, and other such tasks as are normally carried over into office and related work.

Six percent of the population learned skills necessary for their work from sources other than those mentioned. Friends and relatives were often influential in teaching them to do certain jobs. In some cases the individuals are self-taught.

Four percent of the working-age population hold union cards. The low occurrence of union membership reflects the types of jobs held by the Pueblo Indians. The marginal jobs held are in occupations that have traditionally received little or no attention from labor organizations. Many of the service occupations have evaded union attempts at organization in the past. This reflects partially the lack of employment stability in such pursuits. In addition, the reliance upon the federal government for jobs has been in areas of work that have traditionally been untapped by unions.

Such union membership as does exist is restricted essentially to construction, mining, and railroading. Few areas have escaped unionization in such industries. Very few Indians have been employed in unionized industries and, therefore, they have not had much of an opportunity to either accept or reject union membership. In addition, few have had opportunities to participate in union apprenticeship programs.

Skills Training Without Subsequent Job Experience. It is widespread knowledge that Indians prefer to remain on reservations if at all possible. Some venture away long enough to undertake training for various occupations, but once trained they often return to Indian land without gaining experience in occupations for which they are trained. Latent skills were revealed by 14 percent of the population. Specifically, the training that had been undertaken was in such areas as automobile mechanics, cooking, industrial electronics, carpentry, teaching, sewing, and as machine operators. No attempt was made to find out the source and extent of such training. For example, training for teaching may have been received as teacher assistants or, at best, through one or two years of college training. Obviously, such training does not result in adequate qualifications to obtain work. Teacher certification normally requires more than the preparation mentioned. Even if an individual had been temporarily certified at some time in the past without meeting current requirements, the possession of a teaching certificate would not insure a position in the present market for instructors.

Most of the training mentioned by respondents has prepared Acomas only for marginal employment positions. Even so, their unwillingness to relocate could be the major factor in their inability to obtain work in occupations requiring such training. Training for an occupation is of little significance so long as Indians remain on reservations, given the current state of economic development of their lands. The number of on-reservation nonfarm jobs is low, and the future rate of job creation appears bleak.

Sources of Income

The ability to remain on the reservation depends largely upon access to sources of income to provide basic economic needs. Insights into incentives to participate in the labor force may also be recognized by reviewing the sources and amount of earned and unearned income available to individuals and their families. Income data derived from the study is classified by age, sex, and educational attainment. In this way it is possible to determine some of the influence education has had on the economic well-being of the population. It is known that income sharing has a considerable influence on the alternatives available to Indians. For example, a responsibility to care for relatives outside the immediate family may restrict some individuals in attempts to leave the reservation to compete in distant labor markets. It should be recognized that income data were compiled without the benefit of respondent use of records; therefore, the data depend upon recall that may or may not be equally accurate from one respondent to another. The data, however, do provide fairly accurate indications as to the economic well-being of the population.

Earned and Unearned Income

Separate questions were asked of respondents regarding the various sources and amounts of income received by both individuals and their families during calendar 1967. Table XXXIV contains the data on the individual responses about their own receipts and also on their knowledge of total family income. In addition, the bias toward larger family reporting was partially corrected by eliminating the responses of more than one member per family. Such data are presented in the table as adjusted family income.

Nearly one-third of the total working-age population are without any income whatsoever. Another 18.3 percent received less than $500 during 1967. Still another 18 percent of the population reported incomes ranging from $500-999. Only 9 percent were able to attain incomes in the $1,000-1,999 category, and 8.5 percent were in the $2,000-2,999 bracket. In total, 86 percent of the working-age population receive incomes under $3,000 per year. This situation reflects the marginal types of jobs filled by the Acoma people.

TABLE XXXIV
INDIVIDUAL AND FAMILY INCOME

Amount (Dollars)	Individual (Percent)	Family Unadjusted (Percent)	Family Adjusted (Percent)
0	32.3	N.A.	N.A.
1 - 499	18.3	9.1	7.7
500 - 999	17.9	15.2	15.4
1,000 - 1,999	8.9	15.6	15.4
2,000 - 2,999	8.5	11.3	9.9
3,000 - 4,999	5.1	16.0	13.2
5,000 - 9,999	8.1	29.9	33.0
10,000 - and over	0.9	3.0	5.5
TOTAL	100.0	100.1*	100.1*

N = 235 individual; 231 unadjusted family; 91 adjusted family.
* Does not sum to 100 percent due to rounding.

Less than 1 percent of the population receive annual incomes of $10,000 and over. Eight percent fall in the $5,000-9,999 bracket, and another 5 percent report themselves in the $3,000-4,999 range. It is obvious that the vast majority of individuals on the Acoma Reservation do not share proportionately in the general U. S. gains in national income. Individual Indians have not been in a position to compete for work with rewards sufficient to enable them to identify with the general American consumer in the marketplace.

Family Income. The Acoma families have probably remained on an extended family basis because of the necessity for income sharing. Table XXXIV indicates that income sharing is extensive on the reservation. Nine percent (8 percent adjusted) of families receive less than $500 per year as compared to 51 percent for individual respondents. Obviously a significant number of family members are required to

contribute to the support of the unit in order to provide the necessities for life.

The median number of children per family is six, but it is likely that some may not be classified as dependent. However, approximately 15 percent of families, both adjusted and unadjusted, receive income in the $500-999 bracket. In addition, 51 percent of the families subsist on less than $3,000 per year, including both earned and unearned income. After adjusting the data, 48 percent of families still are in the poverty category. Poverty is defined as existing among families of four when income is below $3,130 annually.

At the same time, the pooling of income has had the effect of placing 16 percent of families in the $3,000-4,999 category and 30 percent in the $5,000-9,999 group. On an adjusted basis, the table reveals that nearly one-third of Acoma families receive $5,000-9,999 per year. The $10,000 and over family income group includes 3 percent unadjusted, but 5 percent when on an adjusted basis. The ability of families to rise into the higher categories reflects their industry and attitudes toward seeking work. The relatively large families appear to cooperate in efforts to raise their living standards to a level not possible for one or two working members to provide. Median individual income is only about $500 per year. However, it ranges

TABLE XXXV

NON-MONEY INCOME SOURCES

Source	Percent
Homegrown and consumed agricultural products	3.0
Homemade clothing	0.4
Goods exchanged for other goods	1.7
Other barter sources	1.3

N = 233

between $2,000 and $2,999 on an unadjusted family basis and over $3,000 on an adjusted basis. The Acoma families fare better than the three Arizona tribes included in the Indian Manpower Resource Study.

Non-Money Income. The agricultural background of the Acoma people leads to the logical expectation that there could be considerable income supplements through subsistence gardening and certain forms of barter. Respondents were asked: "Did you receive any non-money income last year?" Several possible categories of response

were provided to individuals questioned, along with other sources they might declare on their own. The sources of non-money income are revealed in Table XXXV.

Some non-money income is earned on the Acoma Reservation, but it appears to be limited. Only 3 percent of the respondents attempt to provide some of their food needs by gardening. Such limited activity may well be restricted to older persons who are acquainted with the tasks of farming. They are likely to be on pensions, and have long withdrawn from the labor force; for these reasons, they may undertake to raise vegetables for home consumption.

Very few women, less than one-half of one percent, make their own apparel. This is so despite the knowledge of sewing skills expressed by respondents. It may well be that the possession of sewing machines is limited. Alternatively, those who do not sew may consider clothing from stores cheaper and their efforts better spent in other pursuits.

Nearly 2 percent revealed that some income is derived from an exchange of goods. Another 1 percent replied that other sources of trade provided some income during the past year. The ones that were able to gain some benefits of a non-money nature did not do very well. The amount of non-money income is reported in Table

TABLE XXXVI

MONETARY EQUIVALENT OF NON-MONEY INCOME

Income (Dollars)	Percent
0	94.9
1 - 499	3.4
500 - 999	1.7
1,000 or over	0.0
TOTAL	100.0

N = 234

XXXVI. Ninety-five percent of the population is inactive in barter, gardening, or do-it-yourself types of activity for the purpose of supplementing income. Three percent estimate that their efforts during the past year provided less than $500. Another 2 percent were more successful in that they valued their endeavors in the $500-999 category. The entire range of possiblities, however, does not generate incomes over $1,000 annually to any individuals.

The combined earned and unearned income of Acoma residents is low relative to the general American population. In 1966, median family income for the United States was $7,436.[4] Median Acoma family income, as stated, was only approximately $2,500-3000 in 1967; however, with this income, the Acoma do considerably better than many other Indian tribes. Even so, an estimate apart from this study showed that a family income between $3,130-$6,000 holds a family of four at an "adequate but modest" standard of living.[5] The same source estimated that unattached individuals with incomes under $3,000 and above $1,540 are unable to maintain a modest but adequate standard of living.[6] Most Indians live in poverty on the Acoma Reservation, based on the guidelines just mentioned.

Sources of Individual Income

The sources from which income is received are important in order to differentiate that which is earned from that unearned. The question was asked: "What were the sources of income received by you in the last twelve months?" A considerable number of possible sources were listed in the questionnaire and each person interviewed was asked to identify those applicable to him. Table XXXVII provides the reported sources on the basis of yes or no replies.

The most frequently mentioned source of income was earnings from a trade; roughly 29 percent supply either most or a part of their needs from the various types of jobs they are able to obtain. The category includes both unskilled and skilled types of work performed. It should be observed once again that nearly one-third of the working-age population do not have access to income from any source. It is certain that some in the category are still enrolled in high school, but many others are unable or unwilling to seek work where none exists or to leave the reservation to compete for scarce jobs.

Another 14 percent derive income from farms or ranches. Individuals in the category work by the day or some other specified period for pay. The category does not include ownership of such resources. Ownership is reflected in the self-employed category. Nearly 3 percent of the population report such a source of income.

Nearly 5 percent report earnings from the sale of handicraft. It will be recalled that the Acoma Indians are noted for their pottery. The practice is still relatively popular as can be verified immediately by the number of kilns at Sky City. Still another 5 percent report

income from prior investments or timber sales, annuities, and leases. The exact nature of the investments is not known.

Unearned income is an important feature of the Acoma economy. However, the Bureau of Indian Affairs is not an important source of funds; less than one-half of one percent reported this source. State assistance payments are made to 5 percent of the population. Retirement pensions from private sources reach 4.3 percent of the population with some going to former railroading men. Social Security

XXXVII

SOURCES OF INDIVIDUAL INCOME

Source	Percent*
Gifts from children, relatives, or churches	3.0
Sale of handicrafts	4.7
Self-employed income (includes business, farm, trade or professional enterprise) individual or partnership	2.6
Earnings from a farm, ranch or other business	13.7
Earnings from a trade	28.8
Pensions	4.3
Assistance payments from Bureau of Indian Affairs	0.4
Assistance payments from other public or private sources	4.7
Interest or dividends on personal loans and investments	3.4
Income from royalties, leases, timber sales, annuities	1.7
Judgment or settlement funds	0.0
Sale of property	0.0
Veterans payments	1.3
Social Security	6.9
Unemployment insurance	1.7
None	32.9
Other	9.0

N = 233

* Does not sum to 100 percent because of multiple income sources.

payments reach another 7 percent of the population. Thus, it is obvious that the elderly do make substantial contributions to tribal well-being. Collectively, they are an important provider of care for the extended family units.

Veterans Administration payments to veterans and dependents of all types reach 1.3 percent of the population. These include retirement benefits for some and allotments for family support for others. Unemployment insurance is also collected during periods of slack work; 1.7 percent of the population identified these benefits as a source of income during 1967.

Gifts were received from friends, relatives, or churches by 3 percent of the population. Churches are usually the most active in this category, but it appears that the ability of those congregations that provide such gifts to the Acoma is limited; some other reservations do much better in this regard. Still another 9 percent of the population obtained income from sources other than those specifically named in the questionnaire.

The significant factor is that transfer payments are highly important to the Acoma in their living standard. Such payments account for the difference between poverty and physiological starvation. Life in the extended family is prolonged by the lack of adequate alternatives facing the working-age population. If it can be assumed that labor force participation rises when income levels are relatively low, then the Acoma Reservation contains a virtually untapped reservoir of manpower resources.

Those With No Income

The percentage of working-age respondents on the reservation reporting no income is high (32.9). The fact that many individuals have no income source of their own is primarily a reflection of the low level of labor force participation by females. Of the seventy-six individuals that reported they had no income, fifty-eight are females. Of those women with no income, 72.4 percent listed keeping house as their primary activity during the year prior to the survey. An additional 24.1 percent responded that they were going to school during the year prior to the survey. Of the males with no income, 44.4 percent were enrolled in school.

The age distribution of those females who reported no source of income is presented in Table XXXVIII. The table indicates that the women with no income are dispersed over all age groups. In fact, the age distribution of women with no income does not differ greatly from the age distribution of all women on the reservation. The only large differences appear for the very young women and for the older

TABLE XXXVIII
AGE DISTRIBUTION OF FEMALES WITH NO INCOME

Age Group	Percent of Females with No Income	Percent of All Females in Age Group
16-19	22.4	13.5
20-29	19.0	20.3
30-39	24.1	19.6
40-49	12.1	11.3
50-59	17.2	18.8
60-69	3.5	9.0
70 and over	1.7	7.5
TOTAL	100.0	100.0

N = 58

women. Young women are likely to be enrolled in school and older women are likely to have some sources of unearned income. This age pattern of females with no income confirms the information on labor force participation. In general, the labor force participation for female Acomas is low for all age groups and does not show substantial variation among age groups. The distribution of females with no income does not fluctuate widely among the age groups.

Of the 107 Acoma males in the survey, eighteen reported no income in the year prior to the survey. There is a heavy concentration

TABLE XXXIX
AGE DISTRIBUTION OF MALES WITH NO INCOME

Age Group	Percent of Males with No Income	Percent of All Males in Age Group
16-19	38.9	13.1
20-29	33.3	20.6
30-39	5.6	19.6
40-49	0.0	10.3
50-59	5.6	13.1
60-69	5.6	15.0
70 and over	11.1	8.4
TOTAL	100.1*	100.1*

N = 18
* Does not sum to 100 percent due to rounding.

of Acoma males with no income in the younger age groups as shown in Table XXXIX. Of the Acoma males reporting no income, 38.9 percent are in the 16-19 age group and 33.3 percent are in the 20-29 age group. The concentration in the younger age groups is due to the fact that many of the younger people are enrolled in school. A very high percentage of Acoma males in the 30-69 age range have some source of individual income.

Earnings from a Trade

The most frequently mentioned source of income on the Acoma Reservation is earnings from a trade. Of those responding to the questionnaire, 28.8 percent reported that they had income from a trade. Of the sixty-seven people reporting this source of income, forty-six are males and twenty-one are females. This is consistent with the information developed in the labor force participation section. The higher labor force participation for men is reflected in greater access to this source of income.

The age distribution of those Acoma respondents with earnings from a trade is reported in Table XL. Women with this source of income are concentrated in the 20-29 age group. The age distribution of males with income from a trade is well dispersed. It would appear that this is an important source of male income for all age groups.

TABLE XL
DISTRIBUTION OF EARNINGS FROM A TRADE
(By sex and age)

Age Group	Percent of Females	Percent of Males
16-19	4.8	4.4
20-29	52.4	10.9
30-39	19.1	32.6
40-49	4.8	13.0
50-59	14.3	15.2
60-69	4.8	15.2
70 and over	0.0	0.0
TOTAL	100.2*	91.3*

N = 21 females; 46 males.

* Does not sum to 100 percent due to rounding.

Self-employment and Ownership Income

The respondents to the questionnaire were asked if they had any income from self-employment activity, and if they had any income from ownership of a business. The distinction between these two types of income is essentially the distinction between income associated with work and income associated with the ownership of an economic asset. For example, a person could have a proprietary interest in a business and derive income from that business, but take no part in the operation of the business. Such a person does not receive self-employment income, but may receive income from the business. It is not clear whether respondents were able to make the distinction although interviewers were instructed to make an attempt at establishing the distinction. For the Acoma Reservation, these two sources should probably be treated as one since it does not appear that respondents differentiated between the two income sources. Income from ownership was reported by thirty-two respondents. Of the thirty-two respondents, twenty-six were men. Self-employment income was reported by six individuals. Of these six, four were males. The data suggests that males have greater access to these sources of income than do females. The age distribution of men with income from these sources is presented in Table XLI. Income from ownership is especially important to older males. More than half (57.6)

TABLE XLI
SELF-EMPLOYMENT INCOME AND INCOME FROM OWNERSHIP
(Males by age)

Age Group	Percent of Males with Earnings from Ownership	Percent of Males with Self-employment Income
16-19	11.5	0.0
20-29	19.2	25.0
30-39	7.7	0.0
40-49	3.9	50.0
50-59	19.2	25.0
60-69	26.9	0.0
70 and over	11.5	0.0
TOTAL	99.9*	100.0

N = 26 ownership; 4 self-employment.
* Does not sum to 100 percent due to rounding.

percent) of those with income from ownership were 50 years of age or older. This may reflect income from the operation of farms or ranches on the Acoma Reservation.

Income from Handicrafts

Income from handicrafts on the Acoma Reservation deserves special attention. Pottery made by the Acomas is among the finest produced by Indians in the United States. Some of the pottery being made today on the Acoma Reservation can be sold at very high prices (often more than one hundred dollars). The making of pottery has by tradition been part of the housekeeping chore. Thus, most of the potters producing items for sale are women.

TABLE XLII
DISTRIBUTION OF INCOME FROM HANDICRAFTS
(Females by age)

Age Group	Percent Females
16-19	0.0
20-29	0.0
30-39	10.0
40-49	10.0
50-59	30.0
60-69	40.0
70 and over	10.0
TOTAL	100.0

N = 10

Of the eleven people reporting income from the sale of handicrafts, ten were women. The age distribution of these women is presented in Table XLII. It is interesting to note that 80 percent of the women with income from this source are 50 years of age or older. None of the young people have income from this source. This would suggest that the pottery making skills are not being passed on to younger members of the community to the degree that they were in the past.

Assistance Payments

The number of respondents reporting income from assistance payments was surprisingly low. Whether this reflects a response bias can-

not be determined. Assistance payments from the bureau of Indian Affairs were reported by one individual. Assistance payments from other sources were reported by 4.7 percent of the respondents. Of the eleven people receiving assistance payment from other sources, ten were women. The age distribution of those females receiving income from this source was dispersed over all age groups. In general, the relatively low response rate to this question is surprising.

Income From Social Security

Income from Social Security was reported by 6.9 percent of the respondents. Women of all ages receiving such benefits constituted 7.5 percent of all females. However, only 50 percent of women of age 60-69 and 20 percent of those 70 and over have access to Social Security income. All the males receiving Social Security payments were 60 years of age or older. The importance of Social Security to older people is shown in Table XLIII. Of the women in the survey between 60 and 69 years of age, half had income from Social Security. As indicated by the table, Social Security payments are also an important source for older males.

Unemployment Insurance

Several other sources of income should be mentioned briefly. Only a very small portion of the population receive unemployment insurance payments. This reflects the fact that a large number of Acomas are employed in industries that are not covered by the system. To some extent this is an indication of the economic isolation of the Acoma community. One would expect that since so few Acomas are employed year-round, that a large number of individuals would have received income from this source.

TABLE XLIII

PERCENTAGE OF ACOMAS RECEIVING SOCIAL SECURITY BENEFITS

Age Group	Percent Females in Each Age Group	Percent Males in Each Age Group
All age groups	7.5	5.6
60-69	50.0	25.0
70 and over	20.0	22.2

N = 10 females; 6 males.

Most Frequently Mentioned Sources

One indication of the importance of an income source to a particular age group is the frequency with which the age group in the survey mentions the income source. The most frequently mentioned income sources for female age groups is presented in Table XLIV. Females

TABLE XLIV
MOST FREQUENTLY MENTIONED INCOME SOURCE OF FEMALES
(By age)

Age Group	Most Frequently Mentioned Income Source	Percent of Females in Age Group Receiving Source*
16-19	Gifts	11.1
20-29	Earnings from a trade	40.7
30-39	Earnings from a trade	15.4
40-49	Other	20.0
50-59	Handicrafts	12.0
	Ownership	12.0
	Earnings from a trade	12.0
60-69	Social Security	50.0
	Handicrafts	33.3
70 and over	Other welfare	30.0
	Pensions	20.0
	Social Security	20.0

* Does not sum to 100 percent due to multiple responses.

less than 20 years of age rely most heavily on gifts. Earnings from a trade is the most important source of income for women in the 20-39 age groups. Sources of income for older women are more diversified. Note that income from handicrafts is important to women in the 50-69 age group.

The most important sources of income for Acoma males is presented in Table XLV. Income from ownership and earnings from a trade are consistently mentioned as the most important source of income. The importance of income from ownership reflects the importance of agriculture to the Acoma community. The age categories reporting earnings from ownership indicate that the initial work orientation of men is in agriculture. At some point in their twenties they seek and take jobs outside of the agricultural sector. As they

TABLE XLV
MOST FREQUENTLY MENTIONED INCOME SOURCE OF MALES
(By age)

Age Group	Most Frequently Mentioned Income Source	Percent of Males in Age Group Receiving Source*
16-19	Ownership	21.4
20-29	Earnings from a trade	40.9
	Ownership	22.7
30-39	Earnings from a trade	71.4
40-49	Earnings from a trade	54.5
50-59	Earnings from a trade	50.0
	Ownership	35.7
60-69	Ownership	43.8
	Earnings from a trade	43.8
70 and over	Ownership	33.3

* Does not sum to 100 percent due to multiple responses.

become older there is a tendency to return to the pursuits of earlier life. A return to agriculture seems to start at some time during the fifties. Such action on the part of men may depend largely on the type of job held in the other productive sectors. Those holding less favorable jobs may tend to return earlier than those with relatively better situations.

Income by Education and Sex

The level of income by educational attainment and by sex provides insights into incentives of the Acoma young to obtain education for job purposes. It provides information also on the extent to which women are successful in providing both primary and secondary income for families. To the extent that women are attached to the labor force, their importance relative to reservation men is revealed in Table XLVI. The data in the table are based on 107 male and 133 female responses. Summed horizontally the data show the percentages of both sexes in all income categories by educational attainment. Vertical summation reveals the percentages of both sexes at all educational levels by income category.

It is apparent that fewer women than men receive income from the various sources. The child-rearing responsibilities of women are largely the reason for their inactivity in employment. On the other

TABLE XLVI

INCOME BY EDUCATION AND SEX

(Percent)

Education	Sex	Income									
		$ 0	1-499	500-999	1000-1999	2000-2999	3000-4999	5000-9999	10,000 +	Info. Not Avail.	TOTAL
None	M	0.0	0.0	0.9	0.9	0.9	0.0	0.0	0.0	0.0	2.7
	F	0.0	0.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	2.3
1	M	0.9	1.9	0.0	0.0	0.9	0.0	0.0	0.0	0.0	3.7
	F	0.0	1.5	0.8	0.0	0.0	0.0	0.0	0.0	0.0	2.3
2	M	0.0	0.0	1.9	0.9	0.9	0.9	0.0	0.0	0.0	4.6
	F	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.8
3	M	1.9	0.9	2.8	0.9	0.0	0.0	0.0	0.0	0.0	6.5
	F	0.8	0.0	0.8	0.8	0.0	0.0	0.0	0.0	0.0	2.4
4	M	1.9	0.9	0.0	0.9	0.0	0.0	0.0	0.0	0.0	3.7
	F	0.8	1.5	1.5	0.0	0.0	0.0	0.0	0.0	0.0	3.8
5	M	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0	0.9
	F	1.5	2.3	0.8	0.8	0.0	0.0	0.0	0.0	0.0	5.4
6	M	0.0	1.9	1.9	0.9	0.9	0.0	0.0	0.0	0.0	5.6
	F	0.8	0.0	1.5	0.8	0.0	0.0	0.0	0.0	0.0	3.1
7	M	0.0	0.9	0.0	0.9	0.0	1.9	0.0	0.0	0.0	3.7
	F	3.8	0.8	2.3	0.8	1.5	0.0	0.0	0.0	0.0	9.2
8	M	2.8	1.9	1.9	1.9	1.9	0.0	3.7	0.9	0.0	15.0
	F	3.8	0.8	1.5	0.0	0.0	0.0	0.0	0.0	0.0	6.1
9	M	3.7	0.0	0.9	0.0	0.9	0.9	0.9	0.0	0.0	7.3
	F	7.5	3.0	1.5	0.0	1.5	0.0	0.0	0.0	0.0	13.5
10	M	2.8	2.8	1.9	0.9	0.9	0.9	0.9	0.0	0.0	11.1
	F	9.0	3.8	3.8	0.8	0.8	0.0	0.0	0.0	0.0	18.2
11	M	1.9	1.9	0.0	2.8	0.9	0.9	0.9	0.0	0.0	9.3
	F	4.5	0.8	0.0	0.0	0.8	0.0	0.0	0.0	0.0	6.1
12	M	0.9	0.0	0.9	0.9	2.8	1.9	8.4	0.9	0.0	16.7
	F	9.8	6.8	3.0	0.8	1.5	2.3	0.8	0.0	0.0	25.0
13	M	0.0	0.0	0.0	1.9	0.0	0.0	0.9	0.0	0.0	2.8
	F	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
14+	M	0.0	0.0	0.9	0.0	0.0	0.0	0.9	0.0	0.0	1.8
	F	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Info. not available	M	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	2.8	3.7
	F	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	2.3
TOTAL	M	16.8	13.1	14.9	13.8	11.0	8.3	16.6	1.8	2.8	99.1*
	F	43.9	22.1	19.8	4.8	6.1	2.3	0.8	0.0	1.5	101.3*

N = 107 males; 133 females.

* Does not sum to 100 percent due to rounding.

hand, Acoma men prefer to take on the responsibilities of earning a livelihood when feasible. At the lowest-income ranges, women fare worse than do men. Twenty-two percent of women reported annual earnings of under $500; 13 percent of males had receipts in the same category. Approximately 20 percent of females are in the $500-999 bracket as opposed to 15 percent of men. Income levels of $1,000 and above are attained by more males than females. Fourteen percent of men and 5 percent of women received $1,000-1,999 during calendar 1967. Women were unable to break into the $10,000 and over category; however, nearly 2 percent of males were in a position to do so. Less than one percent of women had incomes in the $5,000-9,999 bracket, but 17 percent of Acoma men that usually worked fell in the category. Obviously income for men is much higher than for women. Female employment is largely confined to low paying relatively unstable types of employment. This is not to say that their receipts are unimportant to family welfare. It is quite the reverse. Their contribution to family income tends to be quite important as revealed earlier in the wide discrepancy between individual income and that for the family.

High school diplomas seem to be highly important for males. High school graduates comprise the largest single educational category for men with nearly 17 percent of the total. Approximately one-half of them have incomes in the $5,000-9,999 bracket. It is the largest single concentration of men in any income class throughout the entire range of educational attainments. However, 3.7 percent of males with eighth grade education fare as well. It is possible that those with lesser educations obtained their jobs in prior years and have continued in them by virtue of seniority rights. Males who seem to be most successful in the higher-income levels are those who have completed grades eight and twelve. Generally, those with high school diplomas fare as well or better than those with one or two years of college experience. The Acoma young may well consider that a high school education is an acceptable termination point in the pursuit of education. The median income range for all men is $1,000-1,999; for high school graduates it is in the $5,000-9,999 category. Thus, those with jobs that fare better in terms of annual income tend to be the ones that remained in school for the entire twelve years.

Female high school graduates, constituting approximately 25 percent of their gender, add more than do other women to family income. Even so, nearly 10 percent receive no income and another 7 percent

have receipts of less than $500 annually. Three percent are in the $500-999 bracket and less than 1 percent reported falling within the $5,000-9,999 category. The median income bracket for female high school graduates is $1-499. For all females throughout the entire range of educational attainment, the median is the same. Those women with some high school attainment do better than those who have not completed some of the secondary years.

It appears that the Acoma Reservation people successful in finding jobs tend to fare better in terms of annual income if they have completed high school. The incentive to undertake education as an investment in the human resource should be present among the population. The limited opportunities available to the Indians seem to be allocated principally among those with greater education than among those with less. In this respect, skills training programs on the reservation are likely to succeed in regard to enrollment. Limited opportunities available for the Acoma on the reservation and adjacent areas indicate that training will amount to little if the people are unwilling to relocate or if measures taken to develop the reservation fail.

Consumption Patterns

The source and extent of income are important factors in explaining manpower utilization on Indian reservations. Income derived from particular activities in accordance with age, sex, and educational attainment provide insights into incentives to seek education for purposes of competing for scarce jobs. It is also possible to gain insights into possible avenues for training Indians to operate on-reservation businesses by analyzing how family income is spent. In addition, the nature of family expenditures provides information on the extent of consumer choice in dealing with the widest possible range of merchants. Dependence upon credit purchases tends to restrict the ability to buy from different sources. Payment for credit cost leaves even less for the individual consumer. Expenditure patterns also furnish insights into the availability of transportation to reservation Indians. This aspect of the study partially explains the ability to participate in the general labor market. The ability to compete with regard to education and skills is one problem; the availability of transportation to commute to job sites is still another. To obtain information about the above factors, respondents were asked separate questions regard-

ing where and how their families purchased groceries, automobile repairs, and clothing.

Purchase of Goods and Services

Table XLVII reveals the places where the Acoma residents usually purchase goods and services. It is obvious that on-reservation retail facilities are nonexistent. The Indians are forced to commute to off-reservation stores in order to purchase food items, clothing, and automobile repairs.

Twenty-one percent of Acoma families do not have need for automobile repair services. Such a response indicates that one-fifth of the population is without direct ownership of transportation facilities. This means that they must either depend upon others for transportation to visit retail outlets off the reservation or must walk. The consequences seem certain with regard to labor force participation and nearly 20 percent of the population are so restricted in attempts to seek work. Job vacancy information may only come from friends and relatives. Such information is limited since the range of Indian industry and occupational experiences is also limited. Therefore, from the very start, the Acoma Reservation Indian has fewer work opportunities than others because information concerning job opportunities is limited. The lack of transportation tends to insure that this will continue to be the situation.

TABLE XLVII

WHERE GOODS AND SERVICES ARE PURCHASED BY FAMILIES

(Percent)

Place	Item		
	Groceries	Automobile Repairs	Clothing
On-reservation	0.0	0.0	0.0
Off-reservation	99.6	75.8	100.0
Half and half	0.0	0.0	0.0
Do not know	0.4	3.0	0.0
None	0.0	21.2	0.0
TOTAL	100.0	100.0	100.0

N = groceries 234; automobile repairs 231; clothing 235.

The opportunity to establish and promote tribal enterprises is apparent. The entire range of goods and services could be made available to Indians on the reservation. Such tribal undertakings would provide not only employment for some of the on-reservation people, but also the experience needed in managing retail operations. The initial undertaking could well be on a tribal basis. After initial successes in business operations, the tribe could withdraw in deference to individual ownership of stores. However, it should be cautioned that credit terms with off-reservation stores may minimize the short-run ability of Indians to switch to on-reservation purchases. It should also be recognized that the median level of income appears to be too low to allow much margin for learning from mistakes.

Method of Payment

Reliance upon credit to purchase ordinary goods and services has the effect of reducing consumer choice; once credit is extended, particularly to families with very low incomes, the possibility of trading elsewhere is limited. This is especially true if credit is difficult to establish among off-reservation merchants, as is commonly the case

TABLE XLVIII
METHOD OF PAYING FOR FAMILY PURCHASES
(Percent)

Method of Payment	Item		
	Groceries	Automobile Repairs	Clothing
Cash	64.8	64.3	73.5
Credit	33.5	18.7	24.4
Oil company credit card		4.4	
Do not know	1.7	12.6	2.1
TOTAL	100.0	100.0	100.0

N = groceries 233; automobile repairs 182; clothing 234.

with Indians. Current law makes it difficult, if not impossible under certain conditions, to recapture credit losses from Indians. For this reason, the extension of credit from off-reservation sources is likely to lead to higher prices reflecting the high risks involved in extending credit. Table XLVIII provides insights into this difficult problem.

One expenditure common to all American families is that made for groceries. Credit in providing the basic food necessities is used by one-third of Acoma families. Slightly less than two-thirds usually obtain their needs on a cash basis. The greater use of cash among Acoma families relative to the three Arizona reservations studies has two dimensions. First, median Acoma family income is higher and this gives them a greater range of freedom in determining how to spend their dollars. The relatively higher incomes permit them to forego credit use for basic needs. Second, the lack of on-reservation retail outlets restricts the availability of credit. As mentioned, off-reservation merchants have less control over repayment of accounts and, therefore, may be less inclined to extend credit to Indian families. Credit terms that are provided the Indians are probably concentrated in a few stores located near the reservation that cater almost exclusively to Indian trade.

The demand for automobile repairs is not as great as that for basic subsistence items. Even so, the majority of repair services are paid for with cash. Approximately 4 percent of the population satisfy their needs by use of oil company credit cards. The use of oil company credit is limited since many either do not apply for these credit cards, or do not meet the necessary qualifications to obtain them.

Nearly 19 percent apparently receive credit directly from garages or service stations to satisfy their repair needs. The ability to use credit for such a purpose seems more limited than it is for food items.

As is the usual case, clothing purchases tend to be more on a cash basis than other consumer items. Nearly 74 percent of families usually purchase clothing with cash. One factor that must be considered is the relatively infrequent need to buy clothing. Stores that cater to the Indian population are not likely to stock a wide range of apparel; this may force the people to satisfy their needs from stores where credit arrangements are more difficult to obtain.

The 24 percent of families that do purchase clothing on a credit basis may be in the lower-income groups, which do not have the ability to patronize other outlets. Conversely, credit users may be in the upper-income ranges and have greater ability to obtain credit from merchants other than those normally catering to Indian customers.

The use of credit among Indian families is so important in explaining their freedom of choice that further analysis of its use is warranted. For this reason, we now turn to an analysis of cash and credit payments by family income group.

Method of Payment by Family Income Level

Table XLIX generally indicates that the greatest use of credit is among those families in the lowest-income groups, although it is not

TABLE XLIX
EXTENT OF CASH AND CREDIT USE BY INCOME LEVEL
(By percent of each income group)

	Item Purchased					
	Groceries		Automobile Repairs		Clothing	
Family Income	Cash	Credit	Cash	Credit	Cash	Credit
$ 0 - 499	33.3	66.7	70.0	30.0	60.0	40.0
500 - 999	52.9	47.1	81.3	18.8	70.6	29.4
1,000 - 1,999	42.9	57.1	85.7	14.3	63.6	36.4
2,000 - 2,999	73.1	26.9	70.6	29.4	72.0	28.0
3,000 - 4,999	72.2	27.7	54.8	45.2	89.2	10.8
5,000 - 9,999	81.2	18.8	76.8	23.2	78.3	21.7
10,000 and over	100.0	0.0	85.7	14.3	85.7	14.3
Info. not avail.	100.0	0.0	100.0	0.0	100.0	0.0

N = groceries 229; automobile repairs 159; clothing 229.
Note: Summation is horizontally by good or service in each income category.

limited exclusively to the lowest groups. Credit demands are greatest among the lowest-income families for goods necessary for subsistence, such as groceries and clothing. At the same time, the higher-income families have greater access to credit terms due to superior ability to repay. Each category of good or service will be reviewed separately.

Groceries. Grocery items tend to be purchased entirely on a cash basis by families receiving $10,000 per year or more. The greatest use of credit is among families with incomes under $2,000 annually. Two-thirds of families in the under $500 annual income bracket usually supply their grocery needs on a credit basis. In the $500-999 category, credit purchases of groceries are usual in 47 percent of families. The percentage is higher in the $1,000-1,999 bracket, with 57 percent of families resorting to credit use to provide grocery items.

In the $2,000-4,999 brackets, there is some tendency to need less credit; slightly over one-fourth of families require such arrangements.

As family income rises over $5,000 annually, the dependence on credit for grocery needs declines. It may well be that dependence upon credit forces low-income families to frequent stores that charge higher prices. The risks involved in extending credit may very well generate higher average prices than among stores functioning solely on a cash basis. The poorest of families seem compelled to pay the credit toll because of the inability to shop elsewhere.

Auto Repairs. All family groups require some credit in automobile maintenance regardless of income level. The greatest demand (45.2 percent) for such arrangements appears to be among families in the $3,000-4,999 bracket. Next in order of magnitude (30.0 percent) is the $0-499 group. The requirement for such services, particularly among families with annual incomes under $5,000 may be closely related to the older model of vehicles owned. The inability to obtain the necessary credit to buy later model automobiles or trucks results in the purchase of older models, which can be expected to need more repairs.

Income groups above $5,000 annually may start off with later model vehicles, which require much less repair than those owned by the other groups. A majority of families in all income groups provide their repair outlays on a cash basis. A lack of ownership of any vehicles and the unavailability of credit terms to Indians is reflected in the service category.

Clothing. The purchase of clothing on a cash basis is more consistent than any other consumer item considered in the study. Credit terms are required by some families in all income categories, but its use may largely reflect family size. The lower-income families may need only clothing for work or for school; consequently, they may find the items stocked by stores normally catering to reservation people acceptable. In these stores, some credit is available. Higher-income families may frequent both those stores near the reservation that provide credit and those that do not. At any rate, most clothing needs among higher-income families may be satisfied through cash outlays whereas lower income groups may be unable to pay cash.

Summary. Greater choice in the selection of retail outlets is available to Acoma residents in the higher-income categories than to lower-income individuals. Lower-income families tend to depend largely on credit purchases for all consumer outlays and for this reason they must patronize the same stores in order to keep active credit accounts.

Expenditure Patterns

Additional information regarding Acoma family expenditures on groceries, automobile repairs, and clothing is provided in Table L. These data both support and extend the observations provided in the previous section. The table provides data revealing the percentage of all families falling within given income categories, and family reliance upon cash or credit transactions is seen in greater detail.

Among all families usually purchasing goods and services, those in the $5,000-9,999 income category are most numerous in terms of cash outlays; they constitute 24.5 percent of families purchasing grocery items, 27 percent of those using auto repair services, and 23.6 percent of those purchasing clothing items. It should be observed that the data mentioned refer to cash purchases of such items as a percent of all purchasers. Families in the $5,000-9,999 category outnumber all others in cash payments for all items purchased. The same family income group constitutes 37 percent of grocery purchasers, 37 percent of auto repair buyers, and 31 percent of clothing purchasers. The $5,000-9,999 group does not depend upon credit for groceries as much as families with receipts in the $500-1,999 categories. The reliance of this lower-income group upon credit terms for basic food items is somewhat greater in terms of all purchasers of the item. Nearly 9 percent of all purchasers of family groceries have incomes in the $1,000-1,999 range and supply their needs by use of credit. The same group accounts for approximately 26 percent of all families using credit for food and related needs. They are followed closely by the $500-999 income group comprising 21 percent of grocery credit users.

Dependence upon credit to maintain motor vehicles is greatest among the $3,000-4,999 group. Those in the group usually using credit account for nearly 9 percent of all users and one-third of all families doing so on credit terms. The group is followed most closely by the $5,000-9,999 category. Even though families with incomes of less than $3,000 per year constitute a smaller percentage of all users of automobile services, they find it necessary to use a substantial amount of credit for repairs. The inability to command higher incomes limits their purchases of automobiles and in turn maintenance services.

Indian families with annual incomes in the $5,000-9,999 range make use of credit to provide clothing needs more than is the case with any other single groups. They require 26 percent of all clothing

TABLE L

METHOD AND EXTENT OF PAYMENT BY FAMILY INCOME LEVEL

GROCERIES, AUTO REPAIRS, AND CLOTHING

(Percent)

Family Income	Method of Payment: Cash — Percent of Total Purchasing Item (1)Gro.	(2)Auto	(3)Cloth.	Cash — Percent of Total Paying Cash (4)Gro.	(5)Auto	(6)Cloth.	Credit — Percent of Total Purchasing Item (1)Gro.	(2)Auto	(3)Cloth.	Credit — Percent of Total Using Credit (7)Gro.	(8)Auto	(9)Cloth.
$ 0 - 499	2.6	4.4	5.2	4.0	6.0	7.0	5.2	1.9	3.5	15.4	7.1	14.0
500 - 999	7.9	8.2	10.5	11.9	11.1	14.0	7.0	1.9	4.4	20.5	7.1	17.5
1,000 - 1,999	6.6	11.3	9.2	9.9	15.4	12.2	8.7	1.9	5.2	25.6	7.1	21.1
2,000 - 2,999	8.3	7.6	7.9	12.6	10.3	10.5	3.1	3.1	3.1	9.0	11.9	12.3
3,000 - 4,999	11.4	10.7	14.4	17.2	14.5	19.2	4.4	8.8	1.8	12.8	33.3	7.0
5,000 - 9,999	24.5	27.0	23.6	37.1	36.8	31.4	5.7	8.2	6.6	16.7	31.0	26.3
10,000 or more	3.1	3.8	2.6	4.6	5.1	3.5	0.0	0.6	0.4	0.0	2.4	1.8
Info. not avail.	1.8	0.6	1.8	2.7	0.9	2.3	0.0	0.0	0.0	0.0	0.0	0.0
TOTAL	66.2	73.6	75.2	100.0	100.1*	100.1*	34.1	26.4	25.0	100.0	99.9*	100.0

N = (1) Groceries = 229 (2) Auto repairs = 159 (3) Clothing = 229
(4) Cash = 151 (5) Cash = 117 (6) Cash = 172
(7) Credit = 78 (8) Credit = 42 (9) Credit = 57

* = Does not sum to 100 percent due to rounding.

credit. It may well be that they supply their needs for apparel more adequately than those in lower-income categories, but they still take on more credit to do so. It should be noted, however, that the three categories in the $0-1,999 range require the majority of all credit for clothing.

In short, it seems that greatest credit use is among families in the $5,000-9,999 income bracket. Such families have greater success in obtaining credit than lower-income families on the one hand, and on the other, this income category comprises the largest single group of families. As may be expected, the need for credit is greatest among lower-income groups. The demand for credit is related to the importance of the item to each group for subsistence. Credit use seems important to most Indian families regardless of the item in question.

NOTES

[1]Mary Roberts Collidge, *The Rain-Makers* (New York: Houghton-Mifflin Co., 1929), p. 17.

[2]Fred Eggan, *Social Organization of the Western Pueblos* (Chicago: The University of Chicago Press, 1950), p. 223.

[3]Charles C. Killingsworth, "The Continuing Labor Market Twist," *Monthly Labor Review*, XCI, 9 (September, 1968), 14.

[4]*Economic Report of the President* (Washington, D.C.: U. S. Government Printing Office, 1968), p. 232.

[5]Leon H. Keyserling, *The Role of Wages in a Great Society* (Washington, D.C.: Conference on Economic Progress, 1966), p. 65.

[6]*Ibid.*

Conclusions

Acomas have had considerable contacts with non-Indians in the past and this factor has made them more susceptible to penetrating off-reservation labor markets than is the situation with some other Indian tribes. The tribe is located close to a major highway and has also been near a large railroad, both of which have kept the Acomas in constant contact with non-Indians. Albuquerque, New Mexico, is relatively close by automobile and this nearness has also had an influence on the attitudes of Acomas.

Significant economic problems have not escaped the Indians despite their relatively favorable geographic location. Median educational attainment is only nine years for men and ten for women. This is largely the result of an agricultural orientation on the part of the people. Males, at least in prior years, were often required to withdraw from school to work on farms. Agriculture is declining rapidly among the people, but its effects remain. In addition, the Acomas tend to have English deficiencies since about three-fourths of individuals usually speak an Indian language in their homes. The low educational attainments and lack of English usage tend to place the Acomas in disadvantaged positions when competing for scarce relatively unskilled jobs.

Acoma males have strong incentive toward vigorously pursuing employment. They have relatively high civilian labor force participation rates in the age categories 30-39 and 40-49. Men in the 30-39 category have a 90.5 percent rate compared to 97.8 percent for the United States. Indian men of age 40-49 have a 100.0 percent rate, which is higher than the 96.3 percent U. S. rate. Young males do not have the opportunities that are available to non-reservation youth. For example, in the 16-19 age category, U. S. participation rates are five times that of Acomas.

Labor force participation appears to be expected of males. After leaving school, they are urged to seek employment. This is reflected in the rising participation rates among men until they reach 50 years of age. They start withdrawing from the labor force during their fifties. Several factors may account for this. The major reason is they simply do not desire to leave the reservation any longer to seek or actually acquire work.

Still another factor is that many still work in agriculture. This seems to be the case since about 38 percent of the working-age population work only seasonally or irregularly. Most seasonal work is in the summer and spring, which implies a great deal of agricultural employment.

Marriage tends to encourage full-time work among men, but discourages it among women. Women have large families, which diminishes their opportunities to work. The median number of children among married persons is four. Responsibilities associated with raising children are reflected in the female labor force participation rates. Acoma females have an overall rate that is less than one-half that of U. S. women. Two-thirds of all Acomas who have never worked are women. Men differ in that most of those who have never worked are of advanced age.

Acomas who work usually do so off the reservation. Sixty-three percent of workers are employed off of tribal land. Other than agriculture, there are practically no employment opportunities on the Acoma Reservation.

The federal government is responsible for about 30 percent of industry experiences over the past five years. Wholesale and retail trade is an industry that 18 percent have penetrated in the same period; the next in importance is mining with 16 percent of Acomas having experience in this industry. Within these industries the Acomas tend to provide work in the service occupations. Thirty-eight percent of occupations are predominantly related to services such as domestics and in preparation of food and beverages. It can be seen that a majority of Acomas are unskilled and must depend upon a relatively high level of economic activity for successful attempts to obtain work in the marginal categories.

The lack of on-reservation jobs and the seasonal character of agriculture have the effect of generating relatively low individual and family incomes. Off-reservation work tends to provide more substantial incomes than on-reservation sources. About 86 percent of indi-

viduals receive incomes under $3,000 per year, and 51 percent of families subsist on less than $3,000. However, multiple workers per family has the result of placing 30 percent of families in the $5,000-9,999 bracket. The income received must be expended on the support of relatively large family units.

There may be increased attention paid to education by Acoma males since about one-half of them with high school diplomas earn $5,000-9,999 per year. It may be that these men have been more adequately equipped to compete for scarce jobs in an unsheltered labor market and their successes will motivate younger Indians to remain in school longer.

Acoma families depend heavily upon off-reservation stores for their consumer goods. This requires them to use cash for purchases of basic items such as food, and not to use credit, which tends to place premium prices on all items purchased. The availability of family automobiles not only fosters off-reservation shopping, but also indicates an ability to commute to work or to seek employment in areas away from the reservation. Twenty-one percent of Acoma families are without automobiles, which diminishes their ability to participate in the labor force.

A relatively long period of contact with non-Indians has had the effect of orienting the Acomas toward labor markets off the reservation. They do not remain away from their Indian homes, however, since there appears to be a withdrawal from labor market activities commencing at about age 50. Future trends will depend largely upon educational efforts. Acoma successes in raising their level of living will be dependent upon their ability to obtain employment off the reservation.